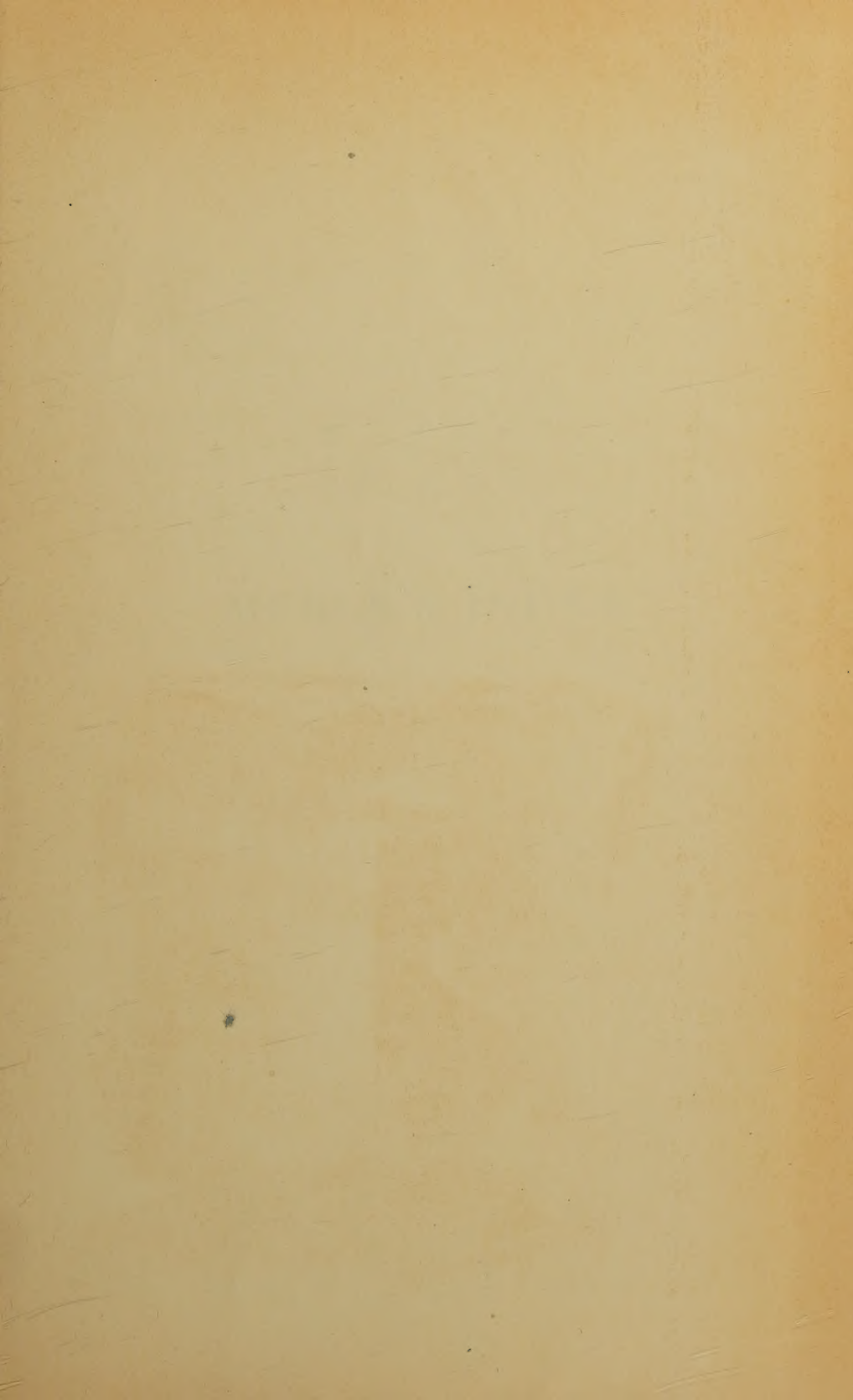


MERCK'S INDEX





MERCK'S INDEX

CHRONOLOGY

AMERICAN SERIES

1889		First Edition
1896		Second Edition
1907		Third Edition
1930		Fourth Edition

GERMAN SERIES

[Published by E. MERCK, Darmstadt]

1897		First Edition
1902		Second Edition
1910		Third Edition
1914	(French Translation) . .	Fourth Edition
1927		Fifth Edition
1929		Sixth Edition

MERCK'S INDEX

[FOURTH EDITION]

AN ENCYCLOPEDIA FOR THE CHEMIST, PHARMACIST AND PHYSICIAN

GIVING THE

NAMES AND SYNONYMS; SOURCE, ORIGIN, OR MODE OF MANUFACTURE; CHEMICAL FORMULAS AND MOLECULAR WEIGHTS; PHYSICAL CHARACTERISTICS; MELTING AND BOILING POINTS; SOLUBILITIES; SPECIFIC GRAVITIES; MEDICINAL ACTION; THERAPEUTIC USES; ORDINARY AND MAXIMUM DOSES; INCOMPATIBILITIES; ANTIDOTES; SPECIAL CAUTIONS; HINTS ON KEEPING AND HANDLING, ETC., OF THE

CHEMICALS AND DRUGS USED IN CHEMISTRY, MEDICINE AND THE ARTS

TOGETHER WITH AN APPENDIX CONTAINING: REACTIONS OF THE MORE IMPORTANT ALKALOIDS AND GLUCOSIDES; CHARACTERISTIC REACTIONS OF ACIDS, BASES, METALS, AND SALTS; TABLE OF ATOMIC WEIGHTS; THERMOMETRIC EQUIVALENTS; SPECIFIC GRAVITY TABLES; METRIC CONVERSION TABLES; AND ABBREVIATIONS.

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PREFACE

Merck's Index perhaps needs no introduction; rather is an explanation due for the tardy publication of this the Fourth Edition—over two decades after the appearance of the previous issue. This delay was caused largely by the complete interruption of work on the book in both laboratory and editorial rooms during the World War. Later it was deemed advisable to await the necessary adjustment, in many standards, which followed the merger of Merck & Co. and the Powers-Weightman-Rosengarten Company.

The intervening years, however, have permitted a most thorough revision and improvement of the work. Its scope has been very much enlarged. Some text included in former editions has had to make way for newer and more important material. Supplementary tables, tests, etc., have been added. At the same time, care has been taken to avoid a massing of matter and detail which would only have defeated the purpose of a condensed, comprehensive, reliable Encyclopedia of Drugs and Chemicals, for the use of members of the chemical, pharmaceutical, medical and allied professions. Particularly do the publishers hope that it will meet the needs of the student, the apprentice, the young man on the threshold of his professional career.

It is but fitting to acknowledge here the labors of those, both here and abroad, who have contributed so much toward placing Merck's Index in the high position it occupies. We realize that we cannot adequately express appreciation of the contributions of the authorities consulted—for use was made of all available material, a bibliography of which would be an array of the leading scientific literature on drugs and chemicals.

To those who have dedicated themselves to the advancement of Chemistry, Pharmacy and Medicine; to those whose life-work is bound up with these sciences, this edition of Merck's Index is dedicated, with the sincere wish of the publishers that it may often be of some real assistance to them in their work.

MERCK & CO. INC.

January 1, 1930

NOTES

SOLUBILITIES.—Those of the U.S.P.X. and N.F.V are given in terms of *Weight to Volume* at 25° C. In general the solubilities given in the text have been collated from the best sources, and unless otherwise indicated are at about 15° C.

ATOMIC AND MOLECULAR WEIGHTS.—Throughout the work these are based on the U.S.P.X table of atomic weights (adopted by the International Committee on Chemical Elements, 1921), and which is given on page 559. On the same page we give in parallel columns, for those workers who desire to use the latest table issued, the atomic weights of 1929 adopted by the American Chemical Society. This table does not differ materially from the 1921 table, so far as concerns the preparations described in this work, with the exception that the figure for Antimony is materially higher than that in the 1921 table.

ACTIONS, USES AND DOSES.—These have been thoroughly revised and amplified to conform with the most recent statements in literature. The medicinal and technical uses in particular have received greatest attention, with the view of making them of most service to the physician and technician.

NOMENCLATURE.—The nomenclature adopted is that which we believe will be acceptable to most readers; but a thorough cross referencing will readily enable anyone to find a preparation sought for.

THE DESIGNATION "MERCK."—The scope of the book is in no sense restricted to Merck products. As a means of identification, therefore, the designation **MERCK** follows the name of every product obtainable under the Merck label and guarantee.

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MERCK'S INDEX

AN ENCYCLOPEDIA FOR THE CHEMIST PHARMACIST AND PHYSICIAN

ABIETIC ANHYDRIDE—see Rosin

Abrin Merck

Toxic protein (agglutinin) obt. fr. the seeds *Abrus precatorius*, L. (Jequirity).—Yellowish-white powd.—SOL.: In solut. NaCl w. turbid.—Exceed. toxic, & causes severe inflam.—USES: Suggested by Kobert f. prod'g artif'l conjunctivitis. Employed (inst. of infus. jequirity) in 1:500,000 aqu. solut. to clear pannous turb'ty, in chron. conjunct., etc. In cancer, a 4%, 8%, 12%, 16%, & 20%, fl'extr. of the jequirity seed is also used, fr. which gelat. sheets are made to cont. 0.00045–0.006–0.009 Gm. each of the fl'extr.—See also *Jequiritol* & *Jequiritol Serum*.—CAUT.: Handle carefully. Smallest particle in slightest wound may be fatal. Extremely dangerous in eye and nose.

Abrus—B.P.C.

Jequirity; Indian or Wild Lic(qu)orice: Prayer, or Jumble, Beads.—Seeds of *Abrus precatorius*, L. Papilionaceæ.—HABIT.: Tropical and sub-tropical countries (East Indies; Brazil).—Seeds abt. $\frac{1}{2}$ in. long, ovoid, smooth, & glossy scarlet color, with a black spot surrounding the hilum.—CONSTIT.: Abrin (*q.v.*), a very toxic agglutinin; abric acid; a subste resembling glycyrrhizin; resin.—USES: In ophthalmology, in form of infusion in trachoma.—See also *Abrin*, *Jequiritol*, and *Jequiritol Serum*.

ABSINTHIIN—see Absinthin

Absinthin Merck

Absinthiin.—Bitter glucoside fr. *Artemisia Absinthium*, L. (Wormwood).—Yellowish, amorph., v. bitter powd.—SOL.: A., C.; alm. insol. W.—MELT.: 55° C. (U.S. Disp.); 65° C. (Real. Enz.).—ACTION: Tonic; Appetizer; Bitter.—USES: Anemia, chlorosis, anorexia, achlorhydria, constipation, etc.—DOSE: 0.1–0.25 Gm. ($\frac{1}{2}$ –4 grn.) 3 t. p. d.

Absinthium—N.F. IV; B.P.C.; Fr. Cod.

Wormwood.—Dried lvs & flowering tops of *Artemisia Absinthium*, L. Compositæ.—HABIT.: North. & West. Asia; Africa; cultiv. in U. S.—CONSTIT.: Absinthin; volat. oil (chiefly absinthol); succinic acid; tannin.—ACTION: Bitter Stomachic; Stim.; Tonic; Febrif.; Anthelm.—USES: Gen. debil., anorexia, rheumat., & cerebral exhaustion.—DOSES: Lvs, 1–2.5 Gm. (15–40 grn.).—Infus. (1:16), 30–60 cc. (1–2 fl. oz.).—Fl'extr., 1–2.5 cc. (15–40 M).—Alcoh. Extr., 0.3–1.3 Gm. (5–20 grn.).—Aq. Extr., 0.3–0.6 Gm. (5–10 grn.).

ABYSSINIAN TEA—see Catha

Acacia—U.S.P. X; B.P.

Gum Arabic.—Dried gummy exudat'n fr. *Acacia Senegal*, Willd., & other spec. of *Acacia*, Leguminosæ.—HABIT.: E. & W. Africa; Arabia; Senegal; Kordofan; Egypt; India; Nubia.—Yellowish wh. to light-amber, ovoid or more or less spheroidal, alm. odorl. tears, or lumps, of various sizes; or in more or less angular fragments; vitr. fract.—SOL.: Slowly & alm. compl. in 2 W.; insol. A.—CONSTIT.: Chiefly arabic acid (arabin; gummic acid) comb'd w. Ca, K, & Mg.—ACTION: Demulc.; Emoll.; Protective; Nutritive.—USES: Intern., Bronch. inflam., gastro-intest. irrit., dry fauces, etc.—Techn., mucilage; pill excip.; emulsifier.—DOSE: As mucilage (35% *Acacia*) 4–15 cc. (1–4 fl. dr.).—INCOMPAT.: (Of mucilage) FeCl₃ (solut. or tinct.); solut. ferric sulph. or subsulph; dialyzed iron; borax (conc. solut.); alcohol; lead subacetate; fresh tr. guaiac.

Acacia Bark—B.P.

Babul, or Wattle, Bark.—Fr. *Acacia arabica*, Willd., Leguminosæ.—HABIT.: India, Arabia, Africa; (the bark fr. *A. decurrens*, Willd., is found in Australia).—CONSTIT.: Tannin (22%–36%); gallic acid.—ACTION: Powerful astringent.—USES: Inst. of oak bark, chiefly as decoct'n, as gargle, lotion, or inj.—DOSE: 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.) of a 6:100 decoct'n.

Acalypha—B.P.C.

Whole plant, *Acalypha indica*, L., Euphorbiaceæ.—HABIT.: India.—CONSTIT.: Resin, tannin; vol. oil; acalyphine.—ACTION: Expecto-rant; Emetic; Laxat.—USES: Inst. of ipecac as expector. & emet.—DOSES: Decoct. (1:20), 15–30 cc. (4–8 fl. dr.).—Liq. Extr. (1:1), 0.3–2 cc. (5–30 M).—Infus. (1:10), 8–30 cc. (2–8 fl. dr.).—Tr. (1:8), 2–8 cc. (30–120 M).

Acenaphthene

1.8.Ethenenaphthene; Naphthylene-ethylene; peri-Ethylenenaphthylene. — $C_{10}H_6(CH_2)_2[1:8] = 154.14$.—Coal-tar constit.; also fr. naphthalene & ethylene at red heat.—Colorl. needles.—SOL.: Diffic. cold, eas. hot, A., B., C., ethyl acetate, glac. acetic acid, petrol. E., CS₂; diffic. cold A.—MELT.: 95° C.—BOIL.: 277.5° C.—USES: Manuf. sulphur dyes, intermediates, perfumes.

Acetal Merck

Diethylacetal; Ethylidenediethylic Ether; Diethylaldehyde.—By condens'g acetaldehyde w. A.— $CH_3CH:(OC_2H_5)_2 = 118.14$.—Colorl. volat. liq.—SOL.: 25 W. at 15° C., or 18 W. at 25° C. (Nat'l Disp.); v. eas. A., E.—BOIL.: Abt 103°

C.—SP. GR.: 0.831 at 20° C.—ACTION: Hypnotic; Sedat.—USES: Insomnia where chloral hydrate contraindic. (may be given intern. in syrup, or rectally in some mucilaginous vehicle).—*Techn.*, solvent, & manuf. synthetic jasmine.—DOSE: 4–10 cc. (1–2½ fl. dr.).—VETER. MED., hypnot. & anesthetic.—*Dogs*, 4–15 cc. (1–4 fl. dr.) w. acacia.

ACETALDEHYDE—see Aldehyde Ethylic

m-ACETALDEHYDE—see Metaldehyde

p-ACETALDEHYDE—see Paraldehyde

ACETALDEHYDE ETHYLIC, AMMONIATED—see Aldehyde-Ammonia

ACETALDEHYDE OXIM—see Acetaldoxim

Acetaldehyde-Sodium Bisulphite

$\text{CH}_3\text{CH}(\text{OH})\text{SO}_3\text{Na} + \frac{1}{2} \text{H}_2\text{O} = 157.12$.—Fr. acetaldehyde & NaHSO_3 .—Wh. cryst.—SOL.: Eas. W.—USES: Purify'g acetaldehyde; organic synthesis.

Acetaldol

Aldol; β -Oxybutyraldehyde.— $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CHO} = 88.08$.—Fr. acetaldehyde by KCN, or Na_2SO_3 , or KOH.—Colorl., thick liq.—MISC.: W., A.; sol. E.—SP. GR.: 1.109 at 16° C.—BOIL.: 83° C. at 20 mm.; decomp. abt 85° C.

Acetaldoxim

Aldoxim; Ethanoxim; Acetaldehyde Oxim.— $\text{CH}_3\text{CH}:\text{N.OH} = 59.06$.—React.-prod. of aldehyde & hydroxylamine.—Colorl. liq., or wh. cryst. below 13° C.—SOL.: A., E., W.—BOIL.: 115° C.—MELT.: 47° C.—SP. GR.: 0.965–0.967.

ACETALPHANAPHTHYLAMINE—see α -Acetnaphthalid

Acetamide Merck—C.P.

Acetic Acid Amide; Ethanamide.— $\text{CH}_3\text{CO}\cdot\text{NH}_2 = 59.06$.—Fr. ammon. carbonate & acetic acid.—Colorl., deliq. cryst.; charact. odor.—SOL.: Eas. W., A., G.—MELT.: Abt 80° C. (after thoro. drying in vacuo).—BOIL.: 222° C. (after drying).

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Acetate.....	0.000%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.002%
Heavy Metals.....	0.000%

USES: Manuf. methylamine; in organic synthesis.

Acetanilid Merck—U.S.P. X—Cryst. or Powd.

Phenylacetamide; Antifebrin.— $\text{C}_6\text{H}_5\text{NHCH}_3\cdot\text{CO} = 135.12$.—Fr. aniline & glac. acetic acid.—Colorl., lustr., odorl. cryst. scales or wh. powd.; sltly pungent taste.—SOL.: 190 W., 3.4 A., 17 E., 3.7 C., 4 acetone, 47 B., abt 5 G., sltly in petrol. benzin, at 25° C., 20 boil. W., 0.6 boil. A., U.S.P. (210 W., 4.2 A. [90%], at 15.5° C., B.P.).—MELT.: 113°–115° C., U.S.P.—BOIL.: 295° C.—ACTION: Analges.; Antipyr.; Sedat. Local Mild Antisep.—USES: *Intern.* fevers (but *not* in low), pneumonia, pleurisy, neuralg., neuritis, tabetic pains, chorea, gastralgia, sciatica, lumbago, chron. muscul. rheumat., epilepsy, migraine, congestive headache, reflex coughs.—*Extern.*, as dust'g powd. on badly granulating

ulcers, chancroids, wounds; in gynecology in erosions and loss of substance follow'g delivery; by insufflation in chron. otorrh. & ophthalmia, chron. purulent otitis; as antisept. (us'ly in impalp. powd.) inst. of iodoform, & to preserve hypoderm. soluts. (1:500).—*Subcut.*, in sciatica.—*Tech.*, stabilizer for H_2O_2 , manuf. para-red & other dyes, intermediates, & celluloid; as addition to cellulose ester dopes and varnishes.—DOSE: *Adults*, as anodyne, 0.06–0.2 Gm. (1–3 grn.); as antipyretic, 0.2–0.3 Gm. (3–5 grn.) sev'l t.p.d.; average dose 0.2 Gm. (3 grn.).—MAX. DOSE: 0.5 Gm. (8 grn.) single, 1.3 Gm. (20 grn.) per day.—*Children*, 0.01–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.) for ea. year of age (Caution: Avoid danger of collapse).—VETER. MED.: In strangles, pleuro-pneumonia, & influenza in horses, & partic. in fever of infectious diseases; laminitis, foot-and-mouth dis., etc.; *horses & cattle*, 30–40 Gm. (8–10 dr.) single, & up to 100 Gm. (25 dr.) p.d.; in laminitis, 4 doses of 15 Gm. (4 dr.) ea., ev. 6 hrs.; in foot-and-mouth dis. as antiabortive; *dogs*, 0.25–1 Gm. (4–15 grn.) up to 2 Gm. (30 grn.) p. day; *sheep & goats*, 2–5 Gm. (30–75 grn.) p. day, & 5–15 Gm. ($\frac{1}{4}$ –4 dr.) p.d.; *pigs*, 1–2 Gm. (15–30 grn.) single, 2–5 Gm. (30–75 grn.) p.d.; *cats*, 0.1–0.25 Gm. ($\frac{1}{16}$ –4 grn.) single, 1 Gm. (15 grn.) p.d.—INCOMPAT.: Nitrous ether (yellow then red solut.); alkalies (aniline liberated); alkali bromides & iodides in aqu. solut. (insol. comp'ds formed); chloral hydrate, phenol, resorcinol, thymol (all afford a liquid or a soft mass on tritur'n).—ANTIDOTES: Camphor & ether subcut.; transfus. of 0.6% NaCl solut. & venesection in excessive methemoglobinemia; stimulants; strychnine & caffeine in full doses to aid respir'n; atropine to maintain blood pressure; oxygen by inhal'n in cyanosis; warmth to feet & body.—CAUT. Contraindic. in adynamic condit.; avoid large doses in fever.

ACETANILID, MONOBROM, or MONOBROMATED—see p-Bromacetanilid

p-ACETANISIDIN—see Methacetin

ACETANNIN—see Acid Acetyltannic

ACETARSON = Stovarsol

ACETATE, BROWN, or GRAY—see Calcium Acetate

ACETETHYLANILID—see Ethylacetanilid

ACETIC ACID AMIDE—see Acetamide

ACETIC ALDEHYDE—see Aldehyde Ethylic

ACETIC ANHYDRIDE—see (Acid) Acetic Anhydride

ACETIC ISOBUTYLESTER—see *iso*-Butyl Acetate

ACETIC OXIDE—see (Acid) Acetic Anhydride

ACETILUM ACIDULATUM—see Acid Acetylsalicylic

Acetin

Monoacetin; Glycerin Monoacetate.— $\text{CH}_3\cdot\text{CO}\cdot\text{O}\cdot\text{CH}_2\cdot\text{CH}(\text{OH})\cdot\text{CH}_2\cdot\text{OH}$, or $\text{CH}_3\cdot\text{CO}\cdot\text{O}\cdot\text{CH}(\text{CH}_2\cdot\text{OH})_2 = 134.11$.—Fr. glycerin by heat'g w. glac. acetic acid.—Colorl., thick, v. hygrosc. liq.—SOL.: Eas. W., A., E.; alm. insol. B.—SP. GR.: 1.221 at 15° C.—BOIL.: 130°–132° C. at 2–3 mm.—USES: *Techn.*, solvent of basic dyes; gelatinizing smokeless powders; manuf. non-congeal'g dynamite; tanning leather.

ACETIN BLUE—see Induline, Alcohol-soluble

α -Acetnaphthalid

Acetalphanaphthylamine. — $C_{10}H_7.NH.CO.CH_3 = 185.16$.—Fr. α -naphthylamine & acetyl chloride.—Sltly reddish, odorl., cryst. powd.—SOL.: Eas. C., ethyl acetate, glac. acetic acid; quite eas. A.; sltly E. B.; diff. in boil., but alm. insol. cold. W.—Subl. eas.—MELT.: $159^\circ C$.

β -Acetnaphthalid

$C_{12}H_{11}NO = 185.16$.—Long need. or plates.—SOL.: Hot W.—MELT.: $132^\circ C$.

ACETOACETIC ETHER—see Ethyl Acetoacetate

ACETOACETICANILID—see Acetylacetanilid

ACETOCINNAMONE—see Benzylideneacetone

ACETOMETHYLPYRONONE—see Acid Dehydracetic

Acetone Merck—Reagent

$CH_3.CO.CH_3 = 58.06$.—Clear, colorl., highly inflamm. liq.; charact. ethereal odor.—MISC.: All propert. W., A., E.—SP. GR.: Abt 0.798 at $15^\circ C$.—BOIL.: Abt $57^\circ C$.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.001%
Acids & Alkalies	0.000%
Substcs Insol. in W.	0.000%
Aldehydes	0.000%
Substcs Reduc'g $KMnO_4$	0.000%

USES: As solvent of fats, resins, oils, colloidon, nitrocelluloses, etc.; in reag. f. milk (Arnold-Mentzel), albumin (Bardach), berberine (Bauer), blood (Reich), & tar dyes (Riechelmann); in analysis of rubber & asphalt; as precipitant of albumin; in photography; detecting Ag & Cu (ous) salts, caramel, methylpentosan, & creatinine.

Acetone Merck—C.P.

Dimethylketone; Propanon; Ketopropane; Dimethylketal; Methylacetyl; Pyroacetic Ether. — $CH_3.CO.CH_3 = 58.06$.—By dry distill'n of acetates, or fr. sugar by fermentation.—Colorl., clear, volat., inflamm. liq.; charact. odor; pungent, sweetish taste.—SOL.: W., A., C., E., in all proport., & in most oils.—SP. GR.: Abt 0.798.—BOIL.: Abt $57^\circ C$.

MAXIMUM OF IMPURITIES

Evap'n Res.	0.002%
Acids & Alkalies	0.000%
Aldehydes	Trace
Substcs Insol. in Water	0.000%
Substcs Reduc'g $KMnO_4$	0.00%

USES: As of Acetone Reagent, above.—CAUT.: Highly inflammable. Keep away from fires, gas flames, etc.

do. Merck—U.S.P. X

DESCRIPTION, SOL., &C.: As preceding.—SP. GR.: Abt 0.790 at $25^\circ C$, U.S.P.; 0.795–0.798 at $15.5^\circ C$, B.P.—BOIL.: 56° – $58^\circ C$.—ACTION: Mild Alterat.; Expector.; Antispasm.; Antidyspneic.—USES: Intern., gout, phthisis, rheumat., chron. laryngeal catarrhs, neuroses.—Extern., inoperable uterine carcinoma, purul. (but not bleeding) wounds (sometimes w. 3%–10% iodof.); by inhalat'n; for disinf. hands; in

liniments f. rheumat.—Techn., chem. anal. & microscopy.—DOSE: 0.3–1.3 cc. (5–20 M) 3 t.p.d.—APPL.: 10%–15% solut., or also pure, in inoperable carcinoma, 30 cc. (1 fl. oz.) being placed in cavity & left there 15–20 minutes; also f. cleansing the skin bef. surg. operat'ns.—VETER. MED., only extern. w., other remedies as an antirheum.—CAUT.: Highly inflammable; keep well stoppered.

do. Merck—Technical

USES: Techn., solvent f. fats, oils, waxes, resins, rubber, pyroxylin; manuf. ether, $CHCl_3$, CH_2Br_2 , sulphonal, explosives, acetone bisulphite, cellulose acetate solvents, lacquers, aeroplane dopes, celluloid, artif. horn, plastic products, isoprene, various dyes, synthetic indigo, etc.; storing acetylene gas (takes up abt 24 times its vol. gas); alcohol denaturant; in paint & varnish removers; in photogr. inst. of alkali in developers; purifying paraffin.—CAUT.: Highly inflammable.

ACETONE, MONOCHLORATED—see Chloracetone

ACETONE-BROMOFORM—see Brometone

ACETONE-CHLOROFORM—see Chlorbutanol

Acetone-Sodium Bisulphite

$(CH_3)_2C(OH).SO_3Na = 162.13$.—Comp'd of acetone & $NaHSO_3$.—Wh. cryst.; fatty feel.; alm. odorl. or only slt SO_2 odor.—SOL.: Eas. W.—USES: Medic., in inoperable carcinoma (inst. of acetone, the latter being liberated fr. the compound by the secretions).—Techn., in photography; manuf. partic. pure acetone; dyeing & printing textiles.

ACETONITRILE—see Methyl Cyanide

ACETOPARAIDANILID—see *p*-Iodacetanilid

ACETOPHEN—see Acid Acetylsalicylic

ACETOPHENONE—see Hypnone

ACETORTHOAMINOTOLUENE, or, ACETORTHOTOLUIDE—see Acet-o-toluide

ACETOSAL, or ACETOSALIN—see Acid Acetylsalicylic

ACETOVANILLON—see Apocynin

Acetozone

Benzoylacetyl Peroxide; Benzozone.— $C_6H_5.CO.O.CO.CH_3 = 180.11$.—Colorl. cryst.—SOL.: Fairly in CCl_4 , C., E.; oils (3%); sltly A.; v. sltly (1:1560) W.—MELT.: Abt $37^\circ C$.—Mktd only as grayish-wh. insol. mixt. of eq. parts benzoylacetyl peroxide w. an absorb. powd.; decomp. on contact w. moisture, or in a warm place.—ACTION: Germicide in dis. of bacterial character; Antisep.; Loc. Anesth.—USES: Intern., typhoid, dysentery, cholera.—Extern., burns, ulcers, excision of tonsils, septic wounds.—DOSE: of mixt., 0.2–0.3 Gm. (3–5 grn.) in gelat. caps.; 0.6 Gm. (10 grn.) p.d.; in typhoid, 2 Gm. (30 grn.) p.d.—APPL.: 2%–3% in oil; 1:700 aq. solut. f. septic wounds; 1:250 w. talc. as dust.-powd.; as spray (0.5 acetozone, 0.5 chlorotone, & 99 mineral oil) in affect. of trachea & lower air passages; warm 1:250–350 solut. as inj. into fistulous tracts, & 1:900 solut. as irrig.—INCOMPAT.: Alkalies; water; heat.

ACETPARABROMANILID—see *p*-Bromacetanilid

ACETPARAMINOSALOL—see Phenetsal

ACETPARAMINOTOLUENE (or, -OL)—see Acet-*p*-toluide

ACETPARAPHENETIDIN—see Acetphenetidin

ACETPARATOLUIDE—see Acet-*p*-Toluide

Acetphenetidin Merck—U.S.P. X

Phenacetin (B.P.); Para-acetphenetidin; Acetparaphenetidin; Oxyethylacetanilid.— $C_6H_4(OC_2H_5)(NH.CH_3.CO)[1:4] = 179.16$.—Wh. sltly bitter, odorl., cryst. scales or powd.—SOL.: 1310 W., 15 A., abt 130 E., 14 C. at 25° C., 82 boil. W., 2.8 boil. A., U.S.P.; (20 A. [90%], 100 A. [60%], 1500 W., at 15° C., B.P.).—MELT.: Betw. 134°–135° C.—ACTION: Antipyr.; Analges.; Sedat.; Antirheum.—USES: *Intern.*, vasomotor neuroses, tabetic pains, nephritis, rheum., pleurisy, whoop-cough, polyuria, diabetes, chorea, chron. neuritis, influenza, tonsil., scarlat.—*Extern.*, painful ulc.; hasten heal'g of wounds.—DOSE: *Antipyr.*, 0.25–0.5 Gm. (4–8 grn.); *antineural.*, 0.5–1 Gm. (8–15 grn.); aver. dose, 0.3 Gm. (5 grn.), U.S.P.—*Children*: 0.12–0.25 Gm. (2–4 grn.).—MAX. D.: 1 Gm. (15 grn.) single; 3 Gm. (45 grn.) p.d.—N.B.: By-effects, exanthema, profuse sweating, cyanosis, diarrh., hematology.—VETER. MED., *horses & cattle*, 10–20 Gm. (2½–5 dr.); *pigs*, 1–2 Gm. (15–30 grn.); *dogs*, 0.2–1 Gm. (3–15 grn.); *cats*, 0.1–0.2 Gm. (1½–3 grn.).—INCOMPAT.: Gives w. phenol, chloral hydrate, or pyrocatechin, a pasty mass; strong acids or alkalies; I; spirit nitrous ether.—ANTID.: Camphor & ether subcut., transfus. of NaCl solut.; stimulants; atropine; strychnine; oxygen.—CAUT.: Use cautiously in phthisis.

Acet-Theocin-Sodium

Soluble Theocin; Theophylline Sodium Acetate.— $C_7H_7N_4O_3Na + CH_3.COONa + H_2O = 318.17$.—Wh. cryst. powd.—Abt 60% anhydrous theocin.—SOL.: Abt 20 W. at 25° C.; insol. A., E.—ACTION: Diuret.—USES: Cardiac dis., nephritis; dropsy, etc.—DOSE: 0.2–0.3 Gm. (3–5 grn.) 3–4 t.p.d.

Acet-o-toluide

Orthotolylacetamide; Acetorthoaminotoluene (or, -ol); Acetorthotoluide.— $CH_3[1].C_6H_4.NH.CO.CH_3[2] = 149.14$.—Fr. *o*-toluidine & acetic acid by heat.—Colorl. cryst.—SOL.: B., E., G., hot W., olive oil; eas. in A., C., ethyl acetate, glac. acetic acid.—MELT.: 109°–110° C.—BOIL.: 296° C.—ACTION: Antipyr.—USES: As of acetanilid, but considered less toxic.—MAX. D.: 0.5 Gm. (8 grn.) single; 4 Gm. (60 grn.) daily. (These doses require further confirmation.)

Acet-*p*-toluide

Paratolylacetamide; Acetparaminotoluene (or, -ol); Acetparatoluide.— $CH_3[1].C_6H_4.NH.CO.CH_3[4] = 149.14$.—Fr. *p*-toluidine & acetic acid by heat.—Colorl. cryst.—SOL.: Eas. boil'g A., E., ethyl acetate, glac. acetic acid; sltly in B., G.; v. sltly W.—MELT.: 153° C.—BOIL.: 307° C.—ACTION: Antipyr.—DOSE: 1–2 Gm. (15–

30 grn.). (These doses require further confirmation.)

Acetyl Bromide

$CH_3.CO.Br = 122.95$.—Fr. glac. acet. acid & PBr_3 .—Colorl., inflam. liq., pungent odor; violently decomp'd by W. w. form'n of $HC_2H_3O_2$ & HBr ; reacts vigorously w. A. & yields ethyl acetate.—BOIL.: 76° C.—USES: In organ. synth. & anal.; manuf. various dyes.—CAUT.: Fumes irritate the eyes.

Acetyl Chloride Merck

$CH_3.CO.Cl = 78.49$.—Fr. glac. acet. acid & PCl_3 .—Colorl., inflam. liq., pungent odor; imparts a green tinge to flame.—MISC.: B., C., E., acetone, glac. acetic acid, petrol. E.; reacts violently w. W. & A.—BOIL.: 51° C.—SP. GR.: 1.113–1.118 at 15° C.—USES: In organ. synth., as acetylating agent, manuf. acetic anhydride & intermediates; as test f. cholesterolin (Tschugajeff), & in anal.; (has also been used medicin. in hypochlorhydria).—CAUT.: Fumes irritate the eyes.

Acetyl Iodide

$CH_3.CO.I = 169.95$.—Fr. acetic anhydride & PI_3 .—Brown, transp., fum'g liq.—SP. GR.: 1.98 at 17° C.—BOIL.: 108° C.—USES: Organ. synthesis.

ACETYL OXIDE—see (Acid) Acetic Anhydride

Acetylacetanilid

Acetoaceticanilid. — $CH_3.CO.CH_2.CO.NH.C_6H_5 = 177.15$.—Wh., odorl. needles or leaflets.—SOL.: A., B., C., E.; also in hot, diffic. in cold, W.—MELT.: 85° C.

Acetylacetone

$CH_3.CO.CH_2.CO.CH_3 = 100.09$.—Fr. acetone or ethyl acetate w. sod. ethylate.—Colorl. or sltly yellow, inflam. liq.; pleas. odor.—SOL.: Abt 8 W.; eas. A., B., C., E., acetone, glac. acetic acid.—BOIL.: 139° C. at 746 mm.—SP. GR.: 0.977–0.981 at 15° C.—USES: Test f. CS_2 (Kurrowski).

ACETYLAMINOAZOTOLUENE—see Azodermin

ACETYL BENZENE—see Hypnone

ACETYL BENZOYLACONINE—see Aconitine, Potent

Acetyl-o-cresol

o-Cresylic, or Orthocresol, Acetate.— $CH_3.C_6H_4.O.CO.CH_3 = 150.13$.—Color. liq.—SOL.: A., E.—BOIL.: Abt 208° C.—MELT.: 104° C.

ACETYLDIPHENYLAMINE—see Diphenylacetamide

ACETYLENE DICHLORIDE—see Dichlorethylene

Acetylene Tetrabromide

Dibromethylene Dibromide; Tetrabromethane; Muthmann's Liquid.— $CHBr_2.CHBr_2 = 345.71$.—Fr. Br. & acetylene.—Yellowish heavy liq.; odor of camphor & iodoform.—MISC.: A., C., E., aniline, acet. acid.—SP. GR.: 2.97–2.98 at 15° C.—BOIL.: 124°–126° C. at 15° C.— $[d]_D^{20} = 1.637$.—USES: In microscopy; separ'g minerals by sp. gr.; as solvent.

Acetylene Tetrachloride

Symm. Tetrachlorethane; Cellon; Bonoform.— $\text{CHCl}_2.\text{CHCl}_2 = 167.87$.—Fr. acetylene & Cl.—Colorl., heavy, v. refract. liq.; suffoc. chlorof. odor; the inhaled vapors have a sweetish taste.—Sol.: v. sltly W.; eas. A. E.—Boil.: 147°C .—Sp. Gr.: 1.602–1.607 at 15°C .—USES: Organ. synthesis; solvent f. S, P, Cl, Br, I, fats, oils, waxes, resins, cellulose acetate, rubber, copal, etc.; manuf. paint & varnish removers, photographic films, intermediates, lacquers; insecticides; denaturing alcohol.

ACETYLENECARBAMIDE—see Acetyleneurea

Acetyleneurea

Acetylenecarbamide; Glycoluril.— $(\text{CON}_2\text{H}_2)_2.\text{C}_2\text{H}_2 = 142.10$.—Fr. allantoin by sodium amalgam.—Wh. cryst. (octahedra or needles).—Sol.: Eas. warm mineral acids; more diffic. in cold conc. H_2SO_4 (pptd unchanged fr. solut. by W.); diffic. cold, more eas. boil., W. or warm NH_4OH ; slowly in boil. alkali hydroxides w. yellow color & evol. of NH_3 .

ACETYLENOGEN—see Calcium Carbide

ACETYLPARAMINOPHENYL SALICYLATE—see Phenetsal

ACETYLPARAMINOSALOL—see Phenetsal

Acetylphenol

Phenyl Acetate; Acetylphenyl Ester.— $\text{C}_6\text{H}_5.\text{COO}.\text{CH}_3 = 136.10$.—Colorl. or sltly yellow, heavy, mobile, h'ly refract. liq.; arom., phenolic odor.—Misc.: A., C., E., glac. acetic acid.—Boil.: Abt 194°C .—Sp. Gr.: 1.081–1.083 at 15°C .—NOTE: Acetylphenol has almost the same refractive index as glass.

ACETYLPHENYL ESTER—see Acetylphenol

ACETYL-*p*-PHENYLENEDIAMINE—see *p*-Aminoacetanilid

ACETYLPHENYLHYDRAZIDE, SYMMETRICAL—see Acetylphenylhydrazine

Acetylphenylhydrazine Merck

Hydracetin; Pyrodin; Symmetrical Acetylphenylhydrazide.— $\text{C}_6\text{H}_5.\text{NH}.\text{NH}.\text{CO}.\text{CH}_3 = 150.14$.—Fr. phenylhydrazine by acetic anhydride.—Wh. cryst. (prisms).—Sol.: Eas. in A., B., C., hot W.; sltly cold W., E.—MELT.: Abt 129°C .—ACTION: Antipyr.; Analg.; Antirheum.; Antiparasitic.—USES: *Intern.*, fevers generally; neuralgias; acute artic. rheumat.—*Extern.*, psoria. & o. skin dis. in 10% oint.—*Techn.*, as test f. glucose.—DOSE: 0.05 Gm. ($\frac{3}{4}$ grn.) 2 t.p.d.—MAX. D.: 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.—NOTE: Must be used w. caut'n because of byeffects.

ACETYSALICYLDIMETHYLXANTHINE—see Theacylon

ACETYSALICYLIC ETHYL ESTER—see Ethyl Acetylsalicylate

ACETYSALICYLTHEOBROMINE—see Theacylon

ACETYSALOL—see Spiroform

ACETYSUCCINIC-ACID-DIETHYLESTER—see Ethyl Acetylsuccinate

Acetylthymol

Thymyl Acetate.— $\text{C}_{10}\text{H}_{13}(\text{COO}.\text{CH}_3) = 192.19$.

—Clear, yellowish, oily liq.; distinct thymol odor.—Misc.: A., B., C., E., glac. acetic acid, ethyl acetate.—Boil.: Abt 244°C .—Sp. Gr.: 0.996 at 15°C .—ACTION: Antisep.

Acetyl tropeine

$\text{C}_8\text{H}_{14}\text{NO}.\text{COCH}_3 = 183.19$.—Syrupy liq.—Sol.: W., A., E.—Boil.: 236°C .

Achillea

Milfoil; Yarrow; Thousand-Leaf.—Flowering herb of *Achillea millefolium*, L., Compositae.—HABIT.: Europe; Asia; naturalized in U. S.—CONSTIT.: Ivaol (a volat. oil cont'g cineol); achillein; achilletin; ivain; achilleic (aconitic?) acid; moschatine; tannin.—ACTION: *Flowers*: Stim.; Aperient; Tonic; Emmen.; *Herb*: In addition, Hemostat. & Alterative.—USES: Debility, amenorrh., dysmenorrh. & uterine dis.; domestic remedy in catarrh.—DOSES: 2–4 Gm. (30–60 grn.) in infus.—Alcoh. extr., 0.3–1.3 Gm. (5–20 grn.).—Aqu. extr., 0.3–1.3 Gm. (5–20 grn.).—Fl' dextr., 2–4 cc. (30–60 M).

Achilleine

$\text{C}_{20}\text{H}_{38}\text{N}_2\text{O}_{15} = 546.42$.—Bitter prin. (alkaloid) fr. *Achillea moschata* and *A. millefolium*.—Brownish, amorph., hygrosc. brittle mass (or powd.).—Sol.: W., sltly A., insol. E.—ACTION: Appetite Stimulant.—DOSE: 0.5–1.3 Gm. (8–20 grn.); in intermittent fever, 0.25–4 Gm. (4–60 grn.).

Acid Abietic

Abietinic Acid.— $\text{C}_{20}\text{H}_{30}\text{O}_2 = 302.34$; ($\text{C}_{44}\text{H}_{64}\text{O}_5 = 672.51$, U. S. Disp.).—Fr. rosin by digest'g w. dil. A.—Yellowish, cryst. powd.—Sol.: A., B., E., acetone, glac. acet. acfd, CS_2 ; insol. W.—MELT.: $153^\circ\text{--}154^\circ\text{C}$.—USES: *Techn.*, metal resins; varnish driers; to assist growth of lactic & butyric acid ferments.

ACID ABIETINIC—see Acid Abietic

ACID ACETAMINOETHYLSALICYLIC—see Benzacetin

Acid Acetic Merck—Reagent—Glacial, 99.5%

$\text{CH}_3.\text{COOH} = 60.04$.—Clear, colorl. liq.; strong pungent odor; vapor is inflamm.—Misc.: W., A.—Sp. Gr.: Abt 1.048 at 25°C .—SOLIDIFIES: Not below 15.6°C .

MAXIMUM OF IMPURITIES

Nonvolatile Matter.....	0.0005%
Chloride (Cl).....	0.0000%
Sulphate (SO_3).....	0.0000%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.0000%
Substcs Reduc'g KMnO_4 (Formic Acid; H_2SO_3).....	0.000%

USES: Neutralizing & acidifying; solvent f. volat. oils, resins, etc.; vehicle f. other reagents, e.g., chromic acid, ICl, IBr, etc.; pptng albumin; detect'g rosin oil in linseed oil; in microscopy; determ. I-No. accord. to Wijs.—ANTID.: *Extern.*, wash w. plenty water; *intern.*, magnesia, chalk, whiting, or soap, in water; emetics, oils, &c.

Acid Acetic Merck—Reagent—Glacial—Conforming to the Dichromate Test

Appearance & properties as of Acid Acetic 99.5%, Reagent.—SOLIDIFIES: At not below 12.8° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Chloride (Cl).....	0.0000%
Sulphate (SO ₃).....	0.0000%
Iron (Fe).....	0.0000%
Other Heavy Metals.....	0.0000%
Substcs Reduc'g K ₂ Cr ₂ O ₇	None

do. Merck—Reagent—36%

SP. GR.: Abt 1.049.

MAXIMUM OF IMPURITIES

Nonvolatile Matter.....	0.0002%
Chloride (Cl).....	0.0001%
Sulphate (SO ₃).....	0.0001%
Iron (Fe).....	0.0001%
Other Heavy Metals.....	0.000%
Substcs Reduc'g KMnO ₄	
(Formic Acid; H ₂ SO ₃).....	0.000%

Acid Acetic Merck—Glacial—C.P., 99.5%

Crystallizable Acetic Acid; Methanecarboxylic Acid.—CH₃.COOH = 60.04.—Fr. wood by distil'n, or synthet.—Colorl. liq.; pungent odor.—SOL.: W., A.—SP. GR.: 1.048–1.0499 at 25° C.—SOLIDIFIES: At not below 15.6° C.—BOIL.: 117°–118° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Chloride (Cl).....	0.000%
Sulphate (SO ₃).....	0.000%
Heavy Metals.....	0.000%
Substcs Reduc'g KMnO ₄	
(Formic Acid; H ₂ SO ₃).....	0.000%

USES: As of the Reagent, 99.5%.

do. Merck—C. P., 36%

Clear, colorl. liq.—SOL.: W., A., G.—SP. GR.: Abt 1.049.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Chloride (Cl).....	0.0005%
Sulphate (SO ₃).....	0.002%
Heavy Metals.....	0.002%
Substcs Reduc'g KMnO ₄	
(Formic Acid; H ₂ SO ₃).....	0.000%

USES: Acidifying, where glacial acid unnecessary or inadvisable.

Acid Acetic Merck—Glacial—99%, U.S.P. X

DESCRIPTION & SOL.: As of the preced'g.—SP. GR.: 1.047–1.050 at 25° C., (1.058 at 15.5° C., B.P.).—BOIL.: 117°–118° C.—SOLIDIFIES: Not below 14.5° C.—ACTION: Astringent; Styptic; Vesicant; Refrigerant.—USES: *Intern.* (in dil. form) in fevers; small doses stimulate, large doses (or long continued use) disturb digestion.—*Extern.*, in 1–3:100 dilution as gargle; remov. warts & corns; in gastric or uterine hemorrhages; by inhal'n in syncope & headache; applic'n to carcinomas, sarcomas, recent chancres, etc.—*Techn.*, manuf. various acetates & acetyl comp'ds; in dyeing, preserv'g foods; manuf. non-inflamm. moving picture films, artif. perfumes, cellulose acetate,

phenol condens'n products, dyes, intermediates, rubber, & as test f. proteids in body fluids (urine, exudates, transudates, etc.) & differentiating normal fr. pathological cerebrospinal fluid.—DOSE: 0.15–0.3 cc. (2½–5 M) well dil'd w. water.—VETER. MED.: *Intern.*, in catarhal & ulcerous stomatitis; fever, & in gastric & intestinal disturbances (tympantitis).—*Extern.*, undiluted, as caustic f. warts, cancer of frog, i. neoplasms, etc.; in 6% dilution as fomentation in contusions & inflammations; as antiparasitic; as enema in oxyurias.—DOSE: (of 6% solution), *horses & cattle* 100–200 cc. (25–50 fl. dr.); *sheep & pigs*, 25–50 cc. (6–13 fl. dr.); *dogs*, 5–20 cc. (75–300 M).—ANTID.: *Extern.*, wash w. plenty water; *intern.*, magnesia, chalk, whitening, or soap, in water; emetics, oils, etc.—INCOMPAT.: Carbonates, hydroxides, & many oxides.

do. Merck—80%

PROPERTIES, SOL., &C.: As of Acetic Acid, Glacial, 99%.—SP. GR.: 1.075 = 10° Bé. at 15° C.

do. Merck—36%, U.S.P. X

SP. GR.: Abt 1.045 at 25° C.—SOL.: W., A., G., in all proport.—DOSE: 0.5–1 cc. (7½–15 M).

do. —33%, B.P.

SP. GR.: 1.044 at 15.5° C.

do. Merck—Technical, "No. 8"

Abt 28–30%.—SP. GR.: 1.040 = 6° Bé. at 15° C.

do. Merck — Diluted — 5.7%–6.3%, U.S.P. X

Fr. 12 Gm. acetic acid + 61 Gm. W.—SP. GR.: Abt 1.008 at 25° C.—USES: Inst. of vinegar (see also under Acid Acetic Glacial).—DOSE: 1–4 cc. (15–60 M); aver. dose 2 cc. (30 M).

do. —Diluted—5%, B.P.

15.26 Gm. acetic acid B.P. + dist. W. to make 100 cc.—SP. GR.: 1.007 at 15.5° C.—DOSE: 2–4 cc. (30–60 M).

(Acid) Acetic Anhydride Merck—Reagent

(CH₃.CO)₂O = 102.07.—Fr. sod. acetate w. CH₃COCl, or w. Cl in presence of sulphur.—Colorl. liq.; pungent odor.—SOL.: Readily in A., C., E.; slowly in W. (form'g acetic acid).—SP. GR.: Abt 1.08 at 15° C.—BOIL.: Abt 137° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.0025%
Chloride (Cl).....	0.001%
Sulphate (SO ₃).....	0.001%
Other Sulphur comp'ds (S)...	0.003%
Phosphorus (P).....	0.000%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Substcs Reduc'g KMnO ₄	None

USES: Examin'g wool-fat, glycerin, fatty & volat. oils, resins, etc.; in acetylations; in organ. anal. & synthesis; in reag. f. cholesterolin (Burchardt; Denigès), eugenol (Chapman), diresorcin (Herzig-Zeisel), copaiba balsam (Italie), malonic acid (Kleemann), phytosterin (Liebermann), isocholesterolin (Schultze), & rosin in oil (Storch-Morawski).—ANTID.: *Extern.*, wash w. plenty water; *intern.*, mag-

nesia, chalk, or whiting, or soap, in water; emetics, oils, &c.

(Acid) Acetic Anhydride Merck—C.P.

Acetic Anhydride; Acetyl Oxide; Acetic Oxide; so-called "Anhydrous Acetic Acid."— $(\text{CH}_3\text{CO})_2\text{O} = 102.07$.—Colorl. liq.; pung. odor.—SOL.: A., E.; slowly in W.; does not diss. when mixed but on long contact, or on boil., forms acetic acid.—Sp. Gr.: Abt 1.080 at 15°C .—BOIL.: Abt 136.5°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.004%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.001%
Phosphorus Comp'ds (P).....	0.001%
Heavy Metals.....	0.000%
Substcs Reduc'g KMnO_4	Trace

USES: In acetylating; as solvent.—ANTID.: As of the preced'g.

do. Merck

USES: Manuf. dyes, perfumes, intermediates, aeroplane dopes, artif. silk, noninflamm. picture films, etc.

ACID ACETIC AMIDE—see Acetamide

"ACID ACETIC ANHYDROUS"—see (Acid) Acetic Anhydride

ACID ACETONIC—see Acid Oxyisobutyric

ACID ACETONIC, META—see Acid Propionic

ACID ACETOSALIC—see Acid Acetylsalicylic

ACID ACETOTRIMETHYLCOLCHICINIC—see Colchicine

ACID ACETYLAMINOHYDROXYPHENYLARSONIC—see Stovarsol

ACID ACETYLCARBOXYLIC—see Acid Pyroracemic

ACID ACETYLPROPIONIC, BETA—see Acid Levulinic

Acid Acetylsalicylic Merck—U.S.P. X.—Cryst., Gran., or Powd.

Acetosol; Acetosalin; Acetosalic Acid; Acetophen; Saletin; Salacetin; Acetulum Acidulatum; Helicon.— $\text{C}_6\text{H}_4\text{O}(\text{CH}_3\text{CO})\text{COOH} = 180.11$.—Fr. salicylic acid & acetic anhydride by heat.—Colorl. cryst., or cryst. powd.—SOL.: 300 W., 5 A., 17°C ., 10–15 E., at 25°C ., & insol. NaOH or Na_2CO_3 w. decomp'n; (125 W., Fr. Cod.; 400 W., 5 A. [90%], B.P.).—MELT.: Not below 132°C ., U.S.P. (133° – 135°C ., B.P.).—ACTION: Antipyr.; Analgesic; Antirheumatic.—USES: *Intern.*, colds, lumbago, neuralgias, influenza, pleurisy, myalgias, headaches, typhoid, rheum., chorea; relieve distress'g cough; night cough of tuberc., acute sore throat, psoriasis (in childr.), rheumatic torticollis; analgesic in inoper. uterine cancer, peritoneal pain fr. gonorrheal infect., excessive after-pains or pelvic neural. in protracted labor; vomit. of pregn.; diabetes; typhoid; puerperal sepsis.—*Locally*, in tonsillitis; as powd. in rheumatic angina; in 3:100 alcohol. solut. in itching skin dis., scabies, etc.—DOSE: 0.3–1 Gm. (5–15 grn.) 3–4 t.p.d.; in typhoid 0.2–0.3 Gm. (3–5 grn.) ev. 4 hrs.—VETER. MED., rheumatism, in glands in dogs.

pleurisy, paralysis in chickens, diabetes mell., and as anthelm.; dogs, 0.3–2 Gm. (5–30 grn.); horses, 25–100 Gm. (6–25 dr.).—INCOMPAT.: Alkalies; bicarbonates; KI.

do. Merck—Granulated, With 10% Starch—White or Pink

Acid Acetyltannic—U.S.P. X

Diacetyltannic Acid; Tannyl Acetate; Acetanin.—Yellowish- or grayish-wh., odorl. powd.—SOL.: Ethyl acetate, soluts of borax, or w. grad. decomp. in alkali hydroxides & carbonates; sltly W., A.—MELT.: Abt 160°C .—ACTION: Intest. astring.—USES: Diarrheas, intest. catarrhs, cholera morbus and infantum, dysentery.—DOSE: 0.2–0.6 Gm. (3–10 grn.) 4 t.p.d.—INCOMPAT.: Alkalies, Fe salts; heat; moisture.—CAUT.: Keep in amber bot.; darkens on expos. to light.

ACID ACHILLEIC—see Acid Aconitic

Acid Aconitic Merck

Equisetic, Citridic, or Achilleic, Acid.— $\text{C}_3\text{H}_3(\text{COOH})_3 = 174.07$.—Fr. lvs & tubers of *Aconitum Napellus*, L., (*Aconite*), fr. var. spec. of *Achillea* & *Equisetum*, & other plants; also fr. citric acid by heat.—Colorl. cryst.; strong acid taste & reaction.—SOL.: Eas. W., A.; sltly E.—MELT.: Abt 187°C . w. decomp.

Acid Adipic

Adipic Acid; Hexanediacid.— $\text{COOH}(\text{CH}_2)_4\text{COOH} = 146.11$.—Fr. animal & plant fats by oxid'n w. HNO_3 .—Wh. cryst. powd.—SOL.: A., hot W.; sltly E., & cold W.; also sol. in HNO_3 without decomp.—MELT.: 152° – 153°C .

ACID ADIPINIC—see Acid Adipic

ACID AGARIC—see Acid Agaricic

Acid Agaricic Merck

Agaric, Laricic, or Agaricinic Acid; so called "Agaricin."— $\text{C}_{19}\text{H}_{36}(\text{OH})(\text{COOH})_3 + 1\frac{1}{2}\text{H}_2\text{O} = 443.45$ (Thoms).—Pure active prin. of *Boletus laricis* (*Agaricus albus*).—Wh., cryst., odorl., alm. tastel. powd.—SOL.: Sltly cold, more eas. boil., W.; 180 cold, 10 boil. A.; 130 A. (90%), B.P.C.; sltly C., E.; eas. hot glac. acetic acid.—MELT.: Abt 140°C . (after being dried at 100°C .)—ACTION: Antihidrotic.—USES: Night-sweats of phth., & to check the sudorific effects of synthetic antipyretics.—DOSE: 0.01–0.03 Gm. ($\frac{1}{10}$ – $\frac{1}{20}$ grn.) at night, in pills.—MAX. D.: 0.1 Gm. ($\frac{1}{10}$ grn.) single.—See also Agaricin.

ACID AGARICINIC—see Acid Agaricic

Acid Alginic

A colloidal substce (acid) obt. fr. sea weeds.—USES: *Intern.*, as alginoids (comp'ds of various metals, e.g., Fe, Na, As, etc.), but chiefly as alginoid-iron in anemia & chlorosis.—*Techn.*, sizing paper & textiles, as binder f. briquettes, manuf. artif. horn, ivory, celluloid, etc.; emulsiozizing mineral oils.

ACID ALLOMALEIC—see Acid Fumaric

Acid Aloeresinic

$\text{C}_7\text{H}_3\text{NO}_6 = 197.07$.—Fr. aloe resin by HNO_3 .—Dark brown, amorph. powd.—SOL.: W.

Acid Aloetic

Aloeticin, or Polychromic, Acid; Aloe Purple; Tetrantiroanthraquinone. — $C_{14}H_4(NO_2)_4O_2 + H_2O(?) = 406.15$.—Fr. aloes by HNO_3 .—Brownish-yellow to orange-yellow, amorph. powd.; explodes w. heat.—SOL.: Sltly in cold, more eas. in hot, W.; eas. in A. w. purple-red color.

ACID ALOETINIC—see Acid Aloetic

ACID ALPHACARBONAPHTHOLIC—see Acid α -Oxy-naphthoic

ACID ALPHACHLOROCROTONIC—see Acid α -Chloro-crotonic

ACID ALPHACRESOTINIC—see Acid *p*-Cresotic

ACID ALPHACROTONIC—see Acid α -Crotonic

ACID ALPHADICINNAMIC—see Acid α -Truxillic

ACID ALPHAHYDROXY(OXY)NAPHTHOIC—see Acid α -Oxy-naphthoic

ACID ALPHAHYDROXYPROPIONIC—see Acid Lactic

ACID ALPHAMINOISOCAPROIC—see Leucine

ACID ALPHAMINOPROPIONIC, INACTIVE—see α -Alanin

ACID ALPHAMONOBROMBUTYRIC—see Acid α -mono-Brombutyric

ACID ALPHAMONOBROMPROPIONIC—see Acid α -mono-Brompropionic

ACID ALPHANAPHTHOIC—see Acid α -Naphthoic

ACID ALPHANAPHTHOLCARBOXYLIC—see Acid α -Oxynaphthoic

ACID ALPHANAPHTHYLAMINEALPHASULPHONIC, or ALPHANAPHTHYLAMINESULPHONIC—see Acid α -Naphthylaminesulphonic

ACID ALPHAOXYISOBUTYRIC, NORMAL—see Acid Oxyisobutyric

ACID ALPHAOXYNAPHTHOIC—see Acid α -Oxy-naphthoic

ACID ALPHAPHENYLACRYLIC—see Acid Atropic

ACID ALPHAPHENYLBETA OXYPROPIONIC—see Acid Tropic

ACID ALPHAPYRIDINECARBOXYLIC—see Acid Picolinic

ACID ALPHATHYMOLSULPHONIC—see Acid Thymolsulphonic

ACID ALPHATOLUIC (or -YLIC)—see Acid Phenyl-acetic

ACID ALPHATRUXILLIC—see Acid α -Truxillic

ACID AMINIC—see Acid Formic

ACID AMINOACETIC—see Glycocoll

ACID AMINOBARBITURIC—see Uramil

ACID *p*-AMINOBENZENESULPHONIC — see Acid Sulphanilic

Acid *m*-Aminobenzoic Merck

Benzaminic Acid. — $C_6H_4.NH_2.COOH[1:3] = 137.10$.—Fr. meta-nitrobenzoic acid by reduct'n.—Wh., cryst. powd.; decomp. into aniline & CO_2 when strongly heated; aqu. solut. turns brown on stand'g in air.—SOL.: Sltly in cold W., E.; eas. in boil., W., & in A.—MELT: $174^\circ C$.—USES: Manuf. azo dyes.

Acid *o*-Aminobenzoic Merck

Anthranilic Acid. — $C_6H_4NH_2.COOH[1:2] = 137.10$.—Fr. indigo, by boil. w. KOH.—Pale reddish cryst. powd.; sweetish taste; decomp. into aniline & CO_2 on heat'g.—SOL.: Eas. A., E., boil'g W.; the soluts. in A., E., & partic. G. exhibit an amethyst fluoresc.—MELT.: $145^\circ C$.—USES: Manuf. synthetic indigo & azo dyes.

Acid *p*-Aminobenzoic Merck

Aminodracylic Acid.— $C_6H_4.NH_2.COOH[1:4] = 137.10$.—Fr. paranitrobenzoic acid by reduct'n; or from acetylparatoluidine by oxid'n.—Pale-yellow cryst. needles; acidulous, bitter taste; decomp. into aniline & CO_2 when strongly heated.—SOL.: Eas. in A., quite eas. in E. & in boil. W.—MELT.: $187^\circ C$.—USES: Manuf. various esters, & azo dyes.

ACID *p*-AMINO BENZOIC ETHYLESTER—see Ethyl Aminobenzoate

ACID *o*-AMINO BENZOYLFORMIC ANHYDRIDE—see Isatin

ACID AMINODRACYLIC—see Acid *p*-Aminobenzoic

ACID AMINOETHYLSULPHONIC—see Taurin

ACID AMINOGLUTARIC—see Acid Glutamic

ACID AMINOISETHIONIC—see Taurin

ACID AMINOISOCAPROIC, ALPHA—see Leucine

ACID *p*-AMINOPHENYLARSONIC—see Acid Arsanilic

ACID AMINOPROPIONIC, ALPHA—see α -Alanin

ACID AMINOPYROTARTARIC, NORMAL—see Acid Glutamic

Acid *m*-Aminosalicylic (Hydrochloride)

Meta-aminosalicylic Acid Hydrochloride.— $C_6H_3(OH)[2](NH_2)[5](COOH)[1].HCl = 189.57$.—Fr. nitrosalicylic acid by reduct'n.—The hydrochloride is stable, but the solut. is v. eas. decomp. becoming brown in air.—Grayish-white cryst.—SOL.: Hot W. & hot A.—USES: Manuf. of light-sensit. paper; azo & sulphur dyes.

ACID AMINOSUCCINAMIC—see *l*-Asparagin

ACID AMINOSUCCINIC—see Acid Asparaginic

Acid Aminosulphonic

Sulphaminic Acid.— $NH_2.SO_2.OH = 97.09$.—Lge transp. cryst.; unchanged in air.—SOL.: Eas. W.; the aqu. solut. may be boiled without decomp.—MELT.: $205^\circ C$. w. decomp.—USES: Prophylactic in cholera asiatica.—DOSE: Tablesp. of a 1% solut. ev. hr; childr. teasp. ev. hr.

ACID AMMONIUM CAMPHORATE—see Ammonium Camphorate

ACID AMMONIUM CARBONATE—see Ammonium Bicarbonate

ACID AMMONIUM FLUORIDE—see Ammonium Bifluoride

ACID AMMONIUM OXALATE—see Ammonium Binoxalate

ACID AMMONIUM PHOSPHATE—see Ammonium Phosphate, Monobasic, or Biphosphate

ACID AMMONIUM SULPHATE—see Ammonium Bisulphate

ACID AMMONIUM TARTRATE—See Ammonium Bitartrate

ACID AMMONIUM URATE—see Ammonium Urate

Acid Amygdalic Merck

Racemic or Inactive Mandelic, Paramandelic, Phenylhydroxyacetic, Amygdalinic, Phenylglycolic, or Benzoyllycolic, Acid.— $C_6H_5 \cdot CH(OH) \cdot COOH = 152.10$.—Wh. cryst.; faint odor.—SOL.: Eas. W., A., E.—MELT.: 118° – 120° C.—USES: Manuf. Intermediates, & dyes.

ACID AMYGDALINIC—see Acid Amygdalic

Acid Anacardic

$C_{22}H_{32}O_3 = 344.36$.—Fr. seed of Anacardium occidentale, L. (Cashew nut).—Brown, cryst. mass.—SOL.: A., E.—MELT.: Abt 26° C.—ACTION: Anthelm.—USES: Vermifuge, in form of ammonium anacardate; rarely as hair dye.

ACID ANCHOIC } see Acid Azelaic
ACID ANCHOINIC }

Acid Anemonic

$C_{10}H_{10}O_5 = 210.13$.—Fr. anemonin by baryta water.—Yellowish powd.—MELT.: 210° C.—SOL.: W.

ACID ANHYDRO-ORTHOSULPHAMINEBENZOIC—see Saccharin

ACID ANILINEAZOBETANAPHTHOLDISULPHONIC G—see Orange G (M)

ACID *p*-ANILINESULPHONIC—see Acid Sulphanilic

Acid Anilotic

Anilotic, or Vicinal Metanitrosalicylic, Acid.— $C_6H_3COOH.OH.NO_2[1:2:3] + H_2O = 201.10$.—Yellowish cryst.—SOL.: A., E.; sltly W.—MELT.: 125° C. (144° C. when anhydr.).

ACID ANILOTINIC—see Acid Anilotic

Acid Anisic Merck

Paramethoxybenzoic, Methyloxybenzoic, or Methylparaoxybenzoic, Acid; ident. w. Draconic Acid (Laurent), Umbellic Acid (Persoz).— $C_6H_4.OCH_3.COOH[1:4] = 152.10$.—Fr. anethol or oil anise by oxid'n.—Colorl., sublimable prisms or needles.—SOL.: A., C., E., ethyl acetate; sltly cold, eas. boil., W.—MELT.: 184° C.—BOIL.: Abt 284° C.—ACTION: Antisep.; Analg.; Antipyr.; Antirheumat.—USES: Intern., inst. of salicylic acid in acute artic. rheumat., fev., neuralg., diab. mell., chronic gastr. & intest. catarrhs, diarr., &c.; us'y in form of sodium anisate.—Extern., wound antisept., oint. for eczemat. erupt.; tooth powd.; & in powd. w. starch, for fetor of feet.—DOSE: 0.3–1 Gm. (5–15 grn.).—APPL.: In 1:10 oint. or alcoh. solut.—ANTID.: Digitalis.

ACID ANTHRANILIC—see Acid *o*-Aminobenzoic

"ACID ANTIMONIC" } see Antimony
ACID ANTIMONOUS, ANHYDROUS } Oxide

ACID, APPLE—see Acid Malic

Acid Arachic

Arachidic, or Arachinic, Acid.— $C_{19}H_{39}.COOH = 312.42$.—Fatty acid fr. oil of Arachis hy-

podæa, L. (Peanut).—Lustrous leaflets.—SOL.: Eas. B., C., hot A., E., petrol. E.—MELT.: 76° – 77° C.

ACID ARACHIDIC } see Acid Arachic
ACID ARACHINIC }

Acid Arsanilic

Atoxylic, or Paraminophenylarsonic, Acid; Arsenic-acid Anilid — $C_6H_4.NH_2.AsO(OH)_2 = 217.06$.—By condens'g aniline w. H_3AsO_4 .—Wh., cryst. powd.—SOL.: Sltly cold W. or A.; sol. hot W., amylic A., E., solut's of alkali carbonates, & dil. mineral acids; insol. acetone.—MELT.: 232° C.—USES: Techn., manuf. arsenicals (arsphenamine, etc.).

Acid Arsenic Merck—C.P.

Orthoarsenic Acid.— $H_3AsO_4 + \frac{1}{2} H_2O = 150.99$.—Wh., v. hygros., cryst. powd.—SOL.: Eas. W., A., G.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.10%
Arsenite (As_2O_3).....	0.5%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.020%
Sulphate (SO_3).....	0.05%

USES: Chiefly in manuf. of arsenates; rarely medicinally, & then us'y only in form of sodium arsenate.—DOSE: 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.).—MAX. D.: 0.005 Gm. ($\frac{1}{12}$ grn.) single; 0.01 Gm. ($\frac{1}{6}$ grn.) daily.—ANTID.: Emetics; stomach siphon, if seen immediately; hot milk & water w. zinc sulphate or mustard. After vomiting, give milk or eggs, & magnesia in milk. Saccharated iron oxide or dialyzed iron if handy. If tincture of iron & ammonia water are within reach, precip. former w. latter, collect precip. on a strainer, & give it moist. Always give antidotes, no matter how hopeless the case appears.—CAUT.: Highly poisonous!

do. Merck—Technical—Dried

PROPERTIES & SOL.: As preced'g.—USES: Techn., in manuf. glass, fuchsine, quinoline derivatives, & intermediates; in print'g & dyeing fabrics, & hardening stone.

(Acid) Arsenic Anhydride Merck

Arsenic Pentoxide. — $As_2O_5 = 229.92$.—Wh., amorph. lumps or powd.; grad'ly deliquesces on expos. to air.—SOL.: Eas. W.; v. eas. A., boil. W.—Combines v. slowly w. H_2O to form H_3AsO_4 .

ACID ARSENOUS—see Arsenic Trioxide

ACID ASPARAGIC—see Acid Asparaginic

Acid Asparaginic

Asparagic, Aspartic, or Aminosuccinic, Acid.— $COOH.CH_2.CH.(NH_2).COOH = 133.08$.—Colorl., odorl. cryst.; distinctly acid taste.—Opt. active; sltly levogyrate in alk. soluts, & distinctly dextrogyrate in strongly acid soluts.—SOL.: Sltly cold, more eas. hot, W.; also in acids & alkalies; also eas. in some salt soluts. (e.g., in 25% solut. NH_4Cl).—USES: Prevent pptn of Cu by KOH.

ACID ASPARTIC—see Acid Asparaginic

ACID ATOXYLIC—see Acid Arsanilic

Acid Atropic

Alphaphenylacrylic Acid. — $\text{CH}_2\text{:C}(\text{C}_6\text{H}_5)\text{-COOH}$ = 148.10.—Fr. atropine by $\text{Ba}(\text{OH})_2$, or by heat w. HCl .—Colorl., tabular or acic. cryst.; volat. by steam, & irritant vapors cause cough.—SOL.: Eas. A., B., C., E., CS_2 , & glac. acetic acid; more diffic. ligroin & boil. W.—MELT.: 106°C .—BOIL.: 106°C . w. part. decomp'n.

Acid α -*iso*-Atropic Merck

$\text{C}_6\text{H}_5\text{.C}(\text{COOH})\text{H}_2\text{C.CH}_2(\text{COOH})\text{CH.C}_6\text{H}_4$ = 296.22.—Fr. atropic acid, by heat.—Wh. cryst.—SOL.: A., acetic acid; alm. insol. cold W., B., E., CS_2 (diff. fr. atropic acid); stlty boil. W.—MELT.: Abt 237°C .

Acid β -*iso*-Atropic

$\text{C}_{18}\text{H}_{16}\text{O}_4$ = 296.22.—Fr. atropic acid, by heat.—Wh., tabular cryst.—SOL.: Boil. W. (more eas. than the α -acid); eas. in A. & glac. acetic acid; v. stlty in CS_2 (differ. fr. atropic acid), & E.—MELT.: 206°C . (when dried at 130°C .)

Acid Atropinesulphuric

Atrinal.— $\text{C}_{17}\text{H}_{23}\text{O}_6\text{NS}$ = 369.35.—Colorl., neutral cryst.—SOL.: Eas. hot W.; insol. A.—MELT.: 238° – 239°C .—USES: As of atropine, partic. in asthma, iodism, vagus neuroses, tachycardia, & night sweats of phth.—DOSE: 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) intern. or subcut.

Acid Azelaic

Azelainic, Anchoic, Anchoinic, or Lepargylic, Acid.— $\text{C}_7\text{H}_{14}(\text{COOH})_2$ = 188.17.—Oxid'n prod. of oleic acid.—Colorl., nacreous cryst.; slt rancid odor; rather strongly acid, liberating CO_2 fr. aqu. soluts of carbonates.—SOL.: Diffic. cold, more eas. boil., W.; eas. A., E.—MELT.: 107°C .—BOIL.: Above 360°C . w. part. decomp.

ACID AZELAINIC—see Acid Azelaic

Acid Barbituric

Malonylurea. — $\text{CO}:(\text{NH.CO})_2:\text{CH}_2 + 2\text{H}_2\text{O}$ = 164.10.—Fr. malonic acid by heat. w. urea & POCl_3 .—Wh., effloresc. prismatic or laminar cryst.—SOL.: Stlty in cold, eas. in hot, W.—USES: Furfurol estimation; as stabilizer of H_2O_2 ; manuf. barbital, phenobarbital, etc., & also as condenser in manuf. plastics.

ACID BARIUM OXALATE—see Barium Binoxalate

ACID BENZAMINIC—see Acid *m*-Aminobenzoic

ACID BENZAMINOACETIC—see Acid Hippuric

ACID BENZENEDICARBOXYLIC—see Acid Phthalic

ACID BENZENEHEXACARBOXYLIC—see Acid Melitic

Acid Benzenesulphonic Merck

Benzolsulphonic Acid.— $\text{C}_6\text{H}_5\text{SO}_3\text{H} + \text{H}_2\text{O}$ = 176.15.—Wh. or alm. wh., v. hygrosc., tabular cryst.—SOL.: Eas. A.; v. eas. W.; dif. B.; insol. E., CS_2 .—MELT.: 43° – 44°C .—USES: Manuf. phenol by fus. w. NaOH .

ACID BENZOARIC—see Gallogen

ACID BENZOBORIC—see Acid Borobenzoic

Acid Benzoic Merck—Reagent

$\text{C}_6\text{H}_5\text{.COOH}$ = 122.08.—Colorl., lustrous needles or scales.—SOL.: Abt 300 W., abt 2 A., abt 2 E., readily in B. or C., at 15°C .—MELT.: 121° – 122°C .

MAXIMUM OF IMPURITIES

Nonvol. Substcs.....	0.010%
Chlorine Compounds (Cl).....	0.001%
Organic Impurities.....	None
Heavy Metals.....	0.000%

USES: Standard f. prepar'g volumetric soluts of alkalis; also employed as a calorimetric standard.

Acid Benzoic Merck—C. P.

Phenylformic Acid.— $\text{C}_6\text{H}_5\text{.COOH}$ = 122.08.—Colorl., lustr. needles or leaflets.—SOL.: Abt. 300 W., abt 2 A., abt 2 E.; eas. B. or C.—MELT.: 121° – 122°C .

MAXIMUM OF IMPURITIES

Nonvol. Substcs.....	0.025%
Chlorine Comp'ds (Cl).....	0.010%
Organic Impurities.....	None
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X

Colorl. scales or needles.—SOL.: 275 W., 2.3 A., 4.5 C., 3 E., 10 B., 23 oil turp., 30 CCl_4 , 30 CS_2 , & stlty in petrol. benz. at 25°C , & in 18 boil. W., 1.5 boil. A., & in oils, U.S.P.; (450 W., 3 A. [90%], 2.5 E., 7 C., at 15.5°C , B.P.). Solub. in W. incr'd by borax or sod. phosphate.—MELT.: 120° – 122°C .—ACTION: Antisep.; Antipyr.; Expector.;—USES: *Intern.*, to acidify phosphatic urine; reduce acidity of uric-acid urine; in delayed resolution in pneumonia; control urinary incontin.; chron. bronch., pulmonary edema, uremic convuls., jaundice; polyarthritis; acute rheumat.; chron. cystitis; urinary calculi.—*Extern.*, wound dressing, in urticaria (20% solut. in A.), & as antisept. lotion or gargle (1:500 W.). 1000 Gm. absorb't gauze soaked in solut. of 50 Gm. benzoic acid, 20 Gm. castor oil, & 2430 cc. methyl alcohol, produces an approx'y 5% surg. gauze.—*Techn.*, preserv. foods, fats, fruit juices, alkaloidal soluts, etc.; manuf. benzoates & benzoyl comp'ds.—DOSES: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.; aver. dose 1 Gm. (15 grn.); as expectorant, 0.12–0.5 Gm. (2–8 grn.) sev'l t.p.d.—VETER. MED., in infectious pneumon. strangles, & catarrhal glanders in dogs. As expectorant f. *horses* & *cattle*, 3–5 Gm. (45–75 grn.), & as antipyr., 25–50 Gm. (6–12 dr.); f. *dogs*, as antipyr., 0.5–2 Gm. (8–30 grn.); *sheep* & *swine*, 2–4 dr. (30–60 grn.).—INCOMPAT.: Salts of Pb, Fe, Ag, Hg.—CAUT.: Darkens in light.

do. Merck—True (from Benzoin Resin)—U.S.P. X

Fr. benzoin resin by sublim'n.—Wh. or yellowish lustr. scales or needles; slt benzoin odor & pung. taste.—SOL., MELT., ACTION & USES: As of the acid fr. toluene.

do. Merck—Fr. Urine

Fr. urine of herbivorous animals.—Colorl. cryst.; urine odor.—SOL.: A., E., sltly W.—USES: *Technical*, in printing & dyeing fabrics; manuf. intermediates, aniline blue, & other coal-tar colors; seasoning & flavor'g tobacco; in perfumes; mordant in calico printing.

(Acid) Benzoic Anhydride

Benzoyl Oxide; so-called "Anhydrous Benzoic Acid."—($C_6H_5.CO)_2O = 226.15$.—Fr. benzoyl chloride by potass. oxalate.—Wh., alm., odorl., cryst. powd.—SOL.: A., C., petrol. E.; v. eas. in acetone, B., E., & ethyl acetate.—MELT.: $42^\circ C$.—BOIL.: $360^\circ C$.—USES: Disinf.—INCOMPAT.: Hot W., alkalies.

ACID BENZOLSULPHONIC—see Acid Benzenesulphonic

ACID BENZOYLAMINOACETIC—see Acid Hippuric

ACID BENZOYLGLYCOLIC—see Acid Amygdalic

ACID BENZOYL TROPIN CARBOXYLIC—see Benzoyl ecgonine

ACID BENZYLACETIC—see Acid Hydrocinnamic

ACID BENZYLPHENOLCARBAMINIC ESTER—see Butolan

ACID BETA-ACETYLPROPIONIC—see Acid Levulinic

ACID BETACARBONAPHTHOLIC—see Acid β -Oxy-naphthoic

ACID BETACHLOROCROTONIC—see Acid β -Chlorcrotonic

ACID BETACHLORISOCROTONIC } see Acid *iso*-
ACID BETACHLOROQUARTENYLIC } Chlorocrotonic

ACID BETAIODOPROPIONIC—see Acid β -Iodopropionic

ACID BETANAPHTHALENESULPHONIC—see Acid β -Naphthalenesulphonic

ACID BETANAPHTHOIC—see Acid β -Naphthoic

ACID BETANAPHTHOLCARBOXYLIC—see Acid β -Oxy-naphthoic

ACID BETANAPHTHYLAMINESULPHONIC—see Acid β -Naphthylaminesulphonic

ACID BETA OXYBUTYRIC—see Acid β -Oxybutyric

ACID BETA OXYETHANALPHASULPHONIC—see Acid Isethionic

ACID BETA OXYMETHYLBETAPYRIDYLPROPIONIC—see Ecgonine

ACID BETA OXYNAPHTHOIC—see Acid β -Oxy-naphthoic

ACID BETAPHENYLACRYLIC—see Acid Cinnamic

ACID BETAPHENYLPROPIONIC—see Acid Hydrocinnamic

ACID BETAPYRIDINE CARBOXYLIC—see Acid Nicotinic

ACID BICHLORACETIC—see Acid Dichloroacetic

ACID BOLETIC—see Acid Fumaric

ACID BORACIC—see Acid Boric

Acid Boric Merck—Reagent—Crystals

Boric Acid.— $H_3BO_3 = 61.92$.—Colorl., trans-

parent cryst.—SOL.: Abt 18 cold, 4 boil., W.; 18 cold, 6 boil., A.; abt. 5 G.

MAXIMUM OF IMPURITIES

Alcohol-Insol. Substcs.....	0.000%
Chloride (Cl).....	0.001%
Phosphate (P_2O_5).....	0.002%
Sulphate (SO_3).....	0.010%
Arsenic (As).....	0.0005%
Calcium (Ca).....	0.002%
Heavy Metals.....	0.000%
Magnesium (Mg).....	0.003%

USES: Reag. f. curcuma (Arzberger), & acetanilid (Watson); determ'g NH_3 .

Acid Boric Merck—C.P.—Cryst. or Powd.

Boracic, or Orthoboric, Acid; Hydrogen Borate.— $H_3BO_3 = 61.92$.—Colorl., transpar. cryst., or wh. powd.—SOL.: 18 W., 18 A., abt 5 G.

MAXIMUM OF IMPURITIES

Substcs Insol. in A.....	0.000%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.010%
Heavy Metals.....	0.000%
Arsenic (As).....	0.00075%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

Colorl., odorl. cryst. w. somewh. pearly luster, granules, or wh. powd. sltly unct. to touch; faint taste.—SOL.: 18 W., 18 A., 4 G. at $25^\circ C$., & 4 boil. W. & 6 boil. A., U.S.P.—MELT.: Abt $160^\circ C$.—ACTION: Antisep.; Preserv.—USES: *Intern.*, cystitis (as urinary antisept. when urine alkaline), tuberc., diar., diphtheria, & abnorm. gastric fermentations.—*Extern.*, dress. wounds & sores in 5%–10% petrolatum oint., & in insufflat. in powd. form; eye lotions & nasal & aural washes, in 1%–4% aqu. solut.; ring-worm; eczema & o. skin dis.; in dust'g powders, & f. perspir'g feet, etc.—*Techn.*, preserv.—DOSE: 0.3–1 Gm. (5–15 grn.) 3 t.p.d.; aver. dose, 0.5 Gm. (8 grn.).—VETER. MED., in dis. of eyes and ears, as in man; horses & cattle, 8–24 Gm. (2–6 dr.); sheep & swine, 2–4 Gm. (30–60 grn.); dogs, 0.5–2 Gm. (8–30 grn.); fowl, 0.5–1 Gm. (8–15 grn.).—INCOMP.: Alkali carbonates & hydroxides.

do. Merck—U.S.P. X—Impalp. Powd.

USES: Insufflat. in rhino-laryngological affect.

do. Merck — 99%–100% — Powd., or Spangles

USES: Extensively used f. rendering wood weatherproof; bleaching; manuf. cements; in printing & dyeing; manuf. enamels, glass, & plaster-of-Paris; in painting, optics, ceramics, & photography; manuf. leather, glue, carpets, linens, hats, dyes, soaps, & artificial gems; refining petroleum; also as insecticide; impregnating wicks; paint & varnish driers.

do. —B.P.—Cryst. or Powd.

Fr. borax by H_2SO_4 .—Colorl. lamellar cryst. (or wh. powd.); unct. to touch; feebly acid & bitter taste leaving a sweetish after-taste.—SOL.: 25 W., 4 G., 30 A. (90%).—USES & DOSES: As of Acid Boric, U.S.P.

(Acid) Boric Anhydride Merck—Reagent

Fused Boric Acid; Boron Oxide, Trioxide, or Sesquioxide; so-called "Anhydrous Boric Acid."
— B_2O_3 = 69.80.—Brittle, vitreous, hygroscopic lumps.—**SOL.**: Abt 35 W., also in A.

MAXIMUM OF IMPURITIES

Silica & Alkalies. 0.010%

USES: Partic. in anal. of silicates to determ. SiO_2 & alkalies accord. to Jannasch.

do. Merck

DESCRIPT.: As preced'g.—Fr. boric acid by strong heat.—Semi-transp., colorl., odorl., glassy, brittle lumps, or wh., gran. powd.; bitter taste; volat. at high temp.—**SOL.**: W., A., G.—**MELT.**: 577° C.—**USES:** Blowpipe work; metallurgy.—**CAUT.**: Keep dry.

"ACID BORIC ANHYDROUS" }

ACID BORIC, FUSED }

ACID BORIC GLASS }

see (Acid) Boric Anhydride

ACID BORIC GLYCERIDE, or GLYCERITE—see Boroglycerin

Acid Borobenzoic

Benzoboric Acid.—Mixt. of 1 boric acid & 2 benzoic acid.—Wh., microcryst. powd.—**SOL.**: Hot W., & A.—**ACTION:** Antiseptic.—**USES:** In mouth washes & gargles. Exhibits physiological act. of boric & benzoic acids.—**DOSE:** 0.6–1.3 Gm. (10–20 grn.).

Acid Borocitric

Mixt. of 1 boric acid & 3 citric acid.—Wh. powd.—**ACTION:** Antiseptic; Uratolytic.—**USES:** Urinary calculi, gout, &c. Solvent power for urates & phosphates said to be very great; biborocitrates are stated to be the best forms for admin.—**DOSE:** 0.3–1.3 Gm. (5–20 grn.) sev'l t.p.d.

ACID BOROFUORHYDRIC—see Acid Borohydrofluoric

Acid Borohydrofluoric

Borofluorhydric, or Hydrofluoboric, Acid.— HBF_4 = 87.91.—Clear, colorl., strongly acid liq.—**MISC.**: W., A.—**Decomp.** at 131° C.

Acid Borophenylic Merck

Mixt. of boric acid & phenol.—Wh. or reddish cryst. powd.—**SOL.**: W.—**ACTION:** Antisep.—**USES:** On bandages f. wounds & vener. sores. Chiefly as preservative (in 1:5000 solut.).

Acid Borosalicylic

Mixt. of 1 boric acid & 2 salicylic acid.—Wh. powd.—**SOL.**: Diffic. cold, more eas. hot, W., A.—**ACTION:** Antisep.—**USES:** *Extern.*, inst. of salicylic acid, us'y in form of sodium salt.—**VETER. MED.**, in washes & oints in itch & scabies.

Acid Borotungstic Merck

Borowolframic Acid.—Light yellow liq.—**SOL.**: W. & A. in all proport.—**Sp. Gr.** 2.96–3.28.—**USES:** Separating mineral mixtures, & in chem. anal.; as test f. peptone (Klein) & alkaloids; for weighting silk & other textiles.—**CAUT.**: Keep fr. air & light.

ACID BOROWOLFRAMIC—see Acid Borotungstic

Acid Brassidic

Brassidinic Acid.—Stereoisomer of erucic acid.— $CH_3(CH_2)_7CH:CH(CH_2)_{11}COOH$ = 338.45.—Fr. erucic acid by dil. HNO_3 .—Thin cryst. plates.—**SOL.**: Diffic. in A., E.—**MELT.**: 65°–66° C.—**BOIL.**: 256° C.

ACID BRASSIDINIC—see Acid Brassidic

Acid mono-Bromacetic

$CH_2Br.COOH$ = 138.95.—Fr. acetic acid by Br in presence of S or P.—Colorl., hygrosc. cryst.—**SOL.**: Eas. W., A.—**MELT.**: 50°–51° C. after drying over H_2SO_4 .—**BOIL.**: 196° C.—**ACTION:** Eschar.; Antisep.—**USES:** *Techn.*, manuf. intermediates & dyes.—**CAUT.**: Keep fr. air & moisture.

Acid Bromauric—N.F. V

$HAuBr_4 + 5H_2O$ = 607.97.—Dark, reddish-brown, odorl., acic. cryst. or gran. masses; not less than 32% Au.—**SOL.**: A.; v. sol. W.—**MELT.**: Abt 27° C.—**ACTION:** Alternative.—**DOSE:** Average, 0.006 Gm. ($\frac{1}{10}$ grn.).

Acid p-mono-Brombenzoic

Monoparabromobenzoic Acid.— $C_6H_4Br.COOH$ = 201.00.—Fr. p-bromtoluene by heat. w. $K_2Cr_2O_7$ & H_2SO_4 .—Wh., cryst. powd.—**SOL.**: A., E.; alm. insol. W.—**MELT.**: 250°–251° C.—**USES:** Organ. synthesis.

Acid α-mono-Brombutyric

$CH_3.CH_2.CHBr.COOH$ = 167.00.—Fr. butyric acid & Br.—Colorl. to stly yellow, oily liq.—**SOL.**: W., A., E.—**BOIL.**: 212°–217° C. w. decomp.; 108°–110° C. at 15 Mm.—**Sp. Gr.**: 1.572–1.575.—**USES:** Organ. synthesis.

ACID BROMHYDRIC—see Acid Hydrobromic

'Acid Bromic Merck—Sp. Gr. 1.12

$HBrO_3$ = 128.93 (abt 15% solut.).—Colorl. or stly yellowish, odorl. liq.; strongly acid taste.—**MISC.**: W.—**USES:** Powerful oxidizer in analyt. chem.

Acid α-mono-Brompropionic

Alphamonobromopropionic Acid.— $CH_3.CHBr.COOH$ = 152.98.—Fr. propionic acid & Br by heat.—Colorl. to stly yellowish, oily liq.—**SOL.**: W., A., E.—**BOIL.**: Abt 204° C. w. decomp.—**Sp. Gr.**: 1.681–1.684 at 15° C.—**USES:** Organ. synthesis.

Acid mono-Bromsuccinic

$HOOC.BrHC.CH_2.COOH$ = 196.98.—Fr. succinic acid & Br by heat.—Wh., optically inactive cryst.—**SOL.**: 5.2 W. at 15.5° C.—**MELT.**: 158°–159° C.—**USES:** Organ. synthesis.

Acid α-iso-Bromvaleric

$(CH_3)_2.CH.CHBr.COOH$ = 181.07.—Fr. iso-valeric acid, Br, & amorph. P.—Lustr. cryst.—**SOL.**: v. stly W.—**MELT.**: 44° C.—**BOIL.**: 230° C. w. slt decomp.; at 150° C. at 40 mm. without decomp.

ACID, BRÖNNER'S—see Acid β-Naphthylamine-sulphonic

ACID, BUTAN—see Acid Butyric

ACID, BUTANOL—see Acid β -Oxybutyric

ACID BUTYLACETIC—see Acid Caproic

ACID *iso*-BUTYLACETIC—see Acid *iso*-Caproic

ACID BUTYLETHYLBARBITURIC—see Soneryl;
Neonal

ACID BUTYLLACTIC—see Acid Oxyisobutyric

Acid Butyric

Normal Fermentation Butyric, Propylformic, or Ethylacetic, Acid; Butan Acid.— $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH} = 88.08$.—Fr. sugar solut. by cheese ferment.—Colorl., limpid, oily liq.; unpleas., rancid odor; strong acid taste.—MISC.: W., A., E.—BOIL.: $160^\circ\text{--}165^\circ\text{C}$.—SP. GR.: 0.960–0.963 at 15°C .—USES: *Techn.*, in the form of its esters, some of which serve as bases of artif. flavor'g ingred. of certain liqueurs, soda-water syrups, candies, etc.; also test f. syphilis (Noguchi); artif. fertilization in biological chemistry.

do. Merck—Absolute, Technical—98%
—100%

SP. GR.: 0.969.—USES: Manuf. butyrates, & the technically important esters; as decalcifier.

do. Merck—Technical, 80%

SP. GR.: 1.002–1.005.

do. Merck—Technical, 60%

SP. GR.: 1.008–1.01.

do. Merck—Technical, 50%

SP. GR.: 1.01–1.02.

Acid *iso*-Butyric

Isopropylformic, or Dimethylacetic, Acid.— $(\text{CH}_3)_2\text{CH.COOH} = 88.08$.—Fr. isobutyl A., $\text{K}_2\text{Cr}_2\text{O}_7$ & H_2SO_4 .—Colorl., limpid liq.; pungent odor like that of butyric acid, but not so unpleas.—MISC.: All prop. A., C., E.; abt 5 W.—BOIL.: $154^\circ\text{--}155^\circ\text{C}$.—SP. GR.: 0.954–0.955 at 15°C .

(Acid) Butyric Anhydride

Normal Butyric Anhydride; Butyryl Oxide; so-called "Anhydrous Butyric Acid".— $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CO})_2\text{O} = 158.14$.—Colorl. liq.—SOL.: A., E.—BOIL.: Abt 198°C .—SP. GR.: 0.971–0.973 at 15°C .

"ACID BUTYRIC ANHYDROUS"—see (Acid) Butyric Anhydride

ACID BUTYRIC, NORMAL FERMENTATION—see Acid Butyric

Acid Cacodylic Merck

Dimethylarsinic, or Kakodylic, Acid.— $\text{AsO}(\text{CH}_3)_2\text{OH} = 138.03$.—Fr. cacodyl by HgO .—Colorl., odorl., sltly sour cryst., hygroscop. in moist air.—SOL.: 0.5 W., 3.5 (90%) A., B.P.C.; insol. E.—MELT.: 200°C .—ACTION: Alterat.; Hematinic.—USES: Obstin. psoriasis, carcinoma, lichen ruber planus, herpes iris, & itching of skin; incip. tuberc., secondary anem., & marasmic condit.; mycosis fungoides; mental dis., syph., trypanosomiasis, leprosy, Pott's dis., tuberc., asthma, bronch., chlorosis, anem., diabet., eye dis., & leucocythemia. The various cacodylates (which see), & partic. sod. cacodylate, are now largely used inst. of the

alkali arsenites, as the former are less toxic.—*Techn.*, organic synthesis & manuf. dyes.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.), us'y subcut. once p.d. or ev. o. day.

Acid Caffetannic

Coffee-tannic, or Chlorogenic, Acid.— $\text{C}_{21}\text{H}_{28}\text{O}_{14} = 504.23$.—Fr. *Coffea arabica*, L. (Coffee).—Brown, resinous mass or powd.—SOL.: W., A.

ACID CALCIUM MALATE—see Calcium Bimalate

ACID CALCIUM PHOSPHATE—see Calcium Phosphate, Monobasic

ACID CALCIUM TARTRATE—see Calcium Bitartrate

ACID CAMPHOLIC—see Acid Camphoronic

ACID CAMPHOR-CHOLEIC—see Cadechol

Acid Camphoric Merck—U.S.P. VIII—Cryst. or Powd.

Dextro-camphoric Acid.— $\text{C}_8\text{H}_{14}(\text{COOH})_2 = 200.18$.—By oxid'n of camphor w. HNO_3 .—Colorl., odorl. cryst.; feebly acid taste.—SOL.: 125 W. at 25°C , 10 boil. W., U.S.P. VIII; 160 W., 1.5 A. (90%) at 15.5°C , & insol. C., B.P.C.; also sol. in fats & oils.—MELT.: 187°C .—ACTION: Antihidr.; Antisep.; Astring.; Anticatar.—USES: *Intern.*, angina, acute & subac. pharyngolaryngitis, acute coryza, typhoid, acute bronch., & laryngeal ulcer; cystitis w. ammoniacal fermentation (2% solut. by irrig.) & night sweats & diarrh. of phth.; chron. bronch., pneum., gonorrh.; as preventative of acute uncomplicated catheteral fever.—*Extern.*, 0.5%–6% aqu. solut. w. 11% A. to each 1% acid, in acute skin dis., or as paint; 0.5%–2% solut. as gargle or spray in acute & chron. affect. of respir. tract.—*Techn.*, manuf. celluloid & similar plastics.—DOSE: 0.3–1 Gm. (5–15 grn.), U. S. Disp.; 0.5–2 Gm. (8–30 grn.) B.P.C.; asanantihidrot., 1–1.5 Gm. (15–23 grn.) 2 hrs before sweating expected to set in.—MAX. D.: 4 Gm. (60 grn.) p.d.—VETER. MED., in laryngopharyngitis & otitis, as applic. of a 0.5%–2% solut.

(Acid) Camphoric Anhydride

$\text{C}_{10}\text{H}_{14}\text{O}_3 = 182.16$.—Fr. camphoric acid & acetylchloride by boil'g.—Wh., acic, odorl., tastel. cryst.—SOL.: Eas. A., B., E., CS_2 ; v. eas. C., ethyl acetate; v. diffic. hot W.—MELT.: 221°C .

Acid Camphoronic

Trimethyltricarballic, or Campholic, Acid.— $\text{C}_6\text{H}_{11}(\text{COOH})_3 = 218.16$.—Fr. camphor in B. solut. by Na & heat.—Wh., hygrosc. cryst.—SOL.: Eas. W.; A., E.—MELT.: $136^\circ\text{--}137^\circ\text{C}$. w. part. decomp.—ACTION: Antisep.—CAUT.: Keep fr. moist air.

ACID CANTHARIDIC LACTONE—see Cantharidin

Acid Capric Merck

Capricin, Decylic, Nonylcarboxylic, or Decoic, Acid.— $\text{CH}_3(\text{CH}_2)_8\text{COOH} = 172.21$.—Fr. cocoanut oil by saponification.—Colorl. cryst.; unpleas. odor; impart fatty stain to paper on which rubbed.—SOL.: Eas. A., B., C., E., CS_2 , ethyl acetate, petrol. E., glac. acetic acid; alm. insol. cold, v. sltly hot, W.; also sol. in HNO_3 (sp. gr. 1.4) without decomp., & is pptd un-

changed on add. W.—MELT.: 31° C. (after dry'g over H₂SO₄).—BOIL.: 268°–270° C.—USES: *Techn.*, in manuf. various esters used in making artif. fruit flavors & perfumes.

ACID CAPRILIC—see Acid Caprylic

ACID CAPRIC—see Acid Capric

Acid Caproic Merck—Normal

Capronic, Hexylic, Hexoic, Butylacetic, or Pentylformic Acid.—CH₃(CH₂)₄COOH = 116.13.—Fr. sugar by ferment. w. putrid cheese.—Colorl. or sltly yellow, oily liq.; unpleas., sweat-like odor.—SOL.: A., E.; alm. insol. W.—BOIL.: 205° C.—SP. GR.: 0.929–0.933 at 15° C.—USES: *Techn.*, in manuf. various esters for artif. flavors.

Acid iso-Caproic—Fr. Capronitrile

Isocaproic, Isohexoic, or Isobutylacetic, acid.—(CH₃)₂CH.CH₂.CH₂.COOH = 116.13.—Colorl., oily liq.; sweat-like odor.—SOL.: A., E.—SP. GR.: 0.925–0.927.—BOIL.: 200°–201° C.

ACID CAPRONIC—see Acid Caproic

Acid Caprylic—Normal

Normal Octylic, Octoic, or Caprilic, Acid.—CH₃(CH₂)₆.COOH = 144.17.—Fr. coconut oil by saponif. & distill'n, or fr. norm. octyl alcohol.—Colorl., oily liq., solidif'g at 16° C.; faint, unpleas., rancid odor; charact., burn., rancid taste; the irrit. vapors cause cough.—SOL.: Eas. A., B., C., E., CS₂, petrol. E., glac. acetic acid; v. sltly (1:400 boil.) W.—SP. GR.: 0.909–0.911 at 20° C.—BOIL.: 236°–237° C.—USES: Manuf. dyes, & of esters used in perfumery.

ACID CARBAZOTIC—see Trinitrophenol

ACID CARBOLIC—see Phenol

ACID CARBOLIC, IODIZED—see Phenol, Iodized

ACID CARBONAPHTHOLIC, ALPHA—see Acid α-Oxy-naphthoic

ACID CARBONAPHTHOLIC, BETA—see Acid β-Oxy-naphthoic

Acid Carbonic, Liquefied

Carbon Dioxide; Carbonic Anhydride.—CO₂ = 44.01.—Fr. carbonates (us'y marble dust) by acids, & subseq. compress'n; fr. limestone by burning; fr. flue gases of coke combustion by absorp'n in solut. K₂CO₃.—H'y volat., colorl. liq.—SOL.: Cold W.—SP. GR.: 0.813 at 15° C.—BOIL.: –78.2° C.—USES: *Extern.*, in form of "snow pencil", to prod. loc. anesth. & to effect removal of moles, "portwine" marks, birthmarks, etc.; also in furuncles, abscesses, anthrax, buboes, phlegmons, epitheliomata, keloid, trachoma, lupus erythematosus, warts, callouses, & senile keratoses.—The "pencil" is made by allowing the liquefied acid to escape fr. a small orifice over which is tied a muslin bag; the sudden expansion of the liquid converts the latter into a "snow" which is collected & pressed in a cylinder, provided with a plunger, to form a pencil which is then applied to the part to be treated. Irregularly shaped surfaces, if not too large, may be treated by cutting a piece of tin, or heavy tin foil, to fit the

outline, placing the metal on the part, and then applying the "pencil" to the metal.—*Techn.*, in form of gas as antisept. in brewing; refrigerating mixtures; in carbonated beverages; preserv'g food products (e.g., ice-cream, beer, etc.); manuf. salicylic acid; fire extinguishers. The solidified form is also mkt'd under the name "Dry Ice," which is used f. preserv'g fruits, vegetables, ice cream, & o. food products during transportation.—ANTID.: Fresh air, pure oxygen, cold douche, galvanism.

Acid Carminic Merck—Reagent

C₉₂H₂₂O₁₃ = 494.29.—Glucosidal color. matter fr. *Coccus cacti*, L. (Cochineal).—The essent. constit. of carmine.—Dark, purplish-brown mass, or bright-red powd.—SOL.: Eas. W., A.; conc. H₂SO₄; caustic alkalies; v. sltly E.; insol. B., C.—Decomp., at 136° C.

MAXIMUM OF IMPURITIES

Insol. Matter. 0.0000%

USES: Stain in microscopy; in 1% solut. as indicator in titrat'g alkalies (partic. NH₃) and alkaloids (morphine, cocaine, atropine & brucine partic.); reagent f. aluminum (Luckow), & albumin (Bogomoloff-Wasileff); differentiating proto- and deuterio- albumoses & peptones (Bogomoloff-Wasileff).

do. —Techn.

USES: *Techn.*, as micros. stain; in color photography; bacteriology; coloring & dyeing fabrics; pigment f. artists.

ACID CARTHAMIC—see Carthamin

ACID CARYOPHYLLIC—see Eugenol

ACID CATECHINIC } see Catechin
ACID CATECHUIC }

Acid Catechutannic

Catechin Monoanhydride; Rubinic, or Zaponic, Acid.—Fr. *Acacia Catechu*, Willd.—C₁₃H₁₂O₅ = 248.16.—Reddish-white or light-brown powd.; intensely bitter, astring. taste.—SOL.: W., & a mixt. of A. & E.; eas. acetone, alkalies; v. diffic. E. The aqu. solut. is acid to litmus.—ACTION: Astring.—USES: To check diar., hemorrhage, leucor. & o. abnorm. disch.; also in spongy, bleed. gums; ulcer'd nipples; bronch. secret.; hoarseness; epistaxis.—DOSE: Rarely given. No definite dose is known. Based on the dosage of catechu, the calculated dose would be 0.1–1 Gm. (1½–15 grn.).—APPL.: 1:20 solut.

Acid "Cathartic"

Cathartinic Acid; Cathartin.—Purified extract fr. senna leaves, & is a mixt. of salts of cathartic acid (the pure acid is v. unstable).—Act. constit. of senna.—Brownish-black gran. powd.; acid astring. taste.—SOL.: W.; insol. B., C., petrol. E., absol. A.—ACTION: Cathar.; Laxat.—USES: Inst. of senna.—DOSE: Adults, 0.25–0.4 Gm. (4–6 grn.); children, 0.1–0.2 Gm. (1½–3 grn.); per rectum, in aqu. solut. (3 + 7) made sltly alkaline w. sod. bicarb. in doses of 0.6 Gm. (10 grn.); the subcut. inj. is painful.

ACID CATHARTIC—see Acid "Cathartic"

Acid Cerotic

Cerotic Acid; Cerin.— $C_{25}H_{51}COOH = 396.55$.—Fr. beeswax.—Wh. or sltly yellowish, odorl., gran. mass.—SOL.: Hot A., glac. acet. acid; insol. W.—MELT.: 78° – 82° C. after slt softening.

ACID CEROTINIC—see Acid Cerotic

ACID CESIUM SULPHATE—see Cesium Bisulphate

ACID CESIUM TARTRATE—see Cesium Bitartrate

ACID CETRARIC—see Cetrarin

ACID CETYLACETIC—see Acid Stearic

ACID CETYLIC—see Acid Palmitic

"ACID CHAULMOOGRIC", OR "CHAULMUGRIC"—see Acid "Gynocardic"

Acid Chenocholic

$C_{27}H_{44}O_4 = 432.49$.—Fr. taurochenocholic acid of goose-bile by boil. w. baryta water.—Yellowish powd.—SOL.: A., E.; insol. W.

ACID CHINIC—see Acid Quinic

ACID CHINOLIC—see Acid Quinolic

ACID CHINOLINIC—see Acid Quinolinic

ACID CHINOVIC—see Acid Quinovic

Acid Chloracetic Merck—Caustic

Mixt. of mono-, di-, & trichloracetic acids in variable proport.—Fr. acet. acid by Cl.—Colorl., clear liq.—SOL.: Eas. W., A.—USES: *Extern.*, Caustic for warts; corns, condylomata, nevi, telangiectasia, etc.—*Techn.*, as intermediate in manuf'g indigo & o. vat dyes.

ACID CHLORACETIC, DI-, & MONO.—see Acid Dichloracetic, & Monochloracetic

ACID CHLORAURIC—see Gold Chloride

ACID CHLORAZOTIC—see Acid Nitrohydrochloric

ACID CHLORHYDRIC—see Acid Hydrochloric

Acid Chloric Merck—Sp. Gr. 1.2

$HClO_3 = 84.47$ (abt 15% solut.).—Colorl., alm. odorl. liq.—MISC.: W.—USES: As oxidizer; also to determ. Sn in bronzes & brass; detect'g bile pigments (Capranika).

Acid α -Chlorocrotonic

Alphachlorocrotonic, or Monochlorocrotonic, Acid.— $Cl.C(COOH):(H.C.CH_3) = 120.52$.—Fr. trichlorbutyl aldehyde & potass. ferrocyanide by boil. w. W.—Wh. lustr., eas. sublimable leaflets or needl.; charact. odor; acid, astring. taste.—SOL.: W., B., C., glac. acetic acid, boil. ligroin; v. eas. A., E., ethyl acetate.—MELT.: 99° – 100.5° C., after previous softening.—BOIL.: 212° C.

Acid β -Chlorocrotonic

Chlortetracrylic Acid.— $H.C(COOH):(Cl.C.CH_3) = 120.52$.—Fr. ethyl acetylacetate by PCl_5 .—Fine needles.—SOL.: Abt 45 W.—MELT.: 94° – 94.5° C.—BOIL.: 206° – 211° C.

Acid *iso*-Chlorocrotonic

Beta-Chlorisocrotonic, or Betachloroquartenylic, Acid.— $H.C(COOH):(CH_3.C.Cl) = 120.52$.—Fr. ethyl acetylacetate by PCl_5 .—Wh. lustr.

needles; faint, charact. odor.—SOL.: Warm W.; eas. in A., B., E., acetone, petrol. E.—MELT.: 60° – 61° C.

ACID CHLOROGENIC—see Acid Caffetannic

ACID CHLORONITROUS—see Acid Nithrohydrochloric

ACID CHLOROPLATINIC—see Platinum Chloride

ACID β -CHLOROQUARTENYLIC—see Acid *iso*-Chlorocrotonic

Acid Chlorsulphonic

Sulphurylhydroxyl Chloride; Sulphuric Chlorhydrin.— $SO_2(OH)Cl = 116.53$.—Colorl. or sltly yellowish, v. caust. liq.; fumes in air; pungent odor.—SP. GR.: Abt 1.765 at 18° C.—BOIL.: 158° C.—USES: Manuf. sulpho acid comp'ds of rosaniline, alizarine, & pupurine; also in manuf. saccharin, & as poison war gas.

ACID CHLORTETRACRYLIC—see Acid β -Chlorocrotonic

Acid Cholic—Amorphous

Colalin.—So-called "Cholic Acid" of Demarcay; (compare Glycocholic Acid).— $C_{24}H_{40}O_5 = 408.44$.—Fr. glyco- & taurocholic acids by hydrolysis w. alkalies.—Yellowish, amorph. powd.—SOL.: A., caustic alkalies; insol. W.—ACTION & USES: As of following.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.) 1–3 t.p.d.

do. Merck—Cryst.

$C_{24}H_{40}O_5 + C_2H_5OH = 454.50$.—Wh., cryst. powd.; sweetish-bitter taste.—SOL.: Sltly cold, more eas. hot, W., A., acetone, glac. acetic acid, alkalies, & alkali carbonates.—MELT.: 199° – 201° C.— $[\alpha]_D^{20} = +31^{\circ}$ to 33° .—ACTION: Cholagogue; Cathartic.—USES: *Intern.*, in hyperacidity, etc., to reduce the pepsin & acid content of the gastric juice.—DOSES: In *hyperacidity*, etc. 0.1 Gm. ($\frac{1}{2}$ grn.) 2 to 5 t.p.d.; as a *cholagogue*, 0.03 Gm. ($\frac{1}{2}$ grn.) 4 t.p.d.; in *constipation*, 0.3–0.5 Gm. (5 – $7\frac{1}{2}$ grn.) in supposit.

ACID CHOLALIC ANHYDRIDE—see Dyslysin

"ACID CHOLEIC" }

"ACID CHOLEINIC" } see Acid Taurocholic

ACID CHOLIAIC }

"ACID CHOLIC"—see Acid Cholic; Acid Glycocholic

ACID CHROMIC—see Chromium Trioxide

ACID CHRYSAMMIC—see Acid Chrysamminic

Acid Chrysamminic

Chrysammic Acid; Tetranitrochrysazin; Tetranitrodioxyanthraquinone.— $C_{14}H_2(NO_2)_4(OH)_2O_2 = 420.13$.—Fr. hepatic aloe by HNO_3 .—Golden-yellow, lustr., bitter leaflets.—SOL.: A. w. deep red, & in E. w. yellow, color; alm. insol. W.—CAUT.: Salts explode when ignited.

Acid Chrysophanic

1.8-Dioxy-3-methylanthraquinone.— $C_{15}H_{10}O_4 = 254.16$.—Fr. chrysarobin by oxid'n in alk. solut.; also found in cascara sagrada, senna, var. spec. of Rumex, etc.—Yellow cryst.—SOL.: Sltly cold, more eas. boil., A.; also in B., E., glac. acetic acid, hot alkalies; alm. insol. W.—MELT.: 186° – 188° C.

"ACID CHRYSOPHANIC," MEDICINAL—see Chrysarobin

ACID CINCHONIDINE SULPHATE—see Cinchonidine Bisulphate

Acid Cinnamic Merck

Betaphenylacrylic, or Cinnamyllic, Acid.— $C_6H_5.CH:CH.CO_2H = 148.11$.—Fr. storax, balsam Peru or tolu, oil of cinnamon, &c., or synthet. fr. benzyl dichloride & sod. acetate.—Colorl. cryst.; slt cinnamon odor.—SOL.: Eas. A., B., C., E., glac. acet. acid, CS_2 , oils, & hot W.; alm. insol. cold W.; (1:3500 W., B.P.C.).—MELT.: $133^\circ-135^\circ C.$ —BOIL.: $300^\circ C.$ —USES: *Chem.*, prepar. salts & therapeutically important esters; in indigo synthesis; preservative.—*Med.*, Tuberc. & lupus, parenchym. & intraven.; also phth.; stimulates leucocytosis.—*Techn.*, Manuf. many artif. perfumes.—DOSE: 0.003–0.015 Gm. ($\frac{1}{20}$ – $\frac{1}{4}$ grn.), B.P.C.; 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.) w. arsenic & extr. opium in phth.—APPL.: In 5% emuls. or alc. solut. w. cocaine in lupus; in 5% alc. solut. as paint in laryngeal tuberc.—INJ.: (Intraven.) 0.015–0.05 Gm. ($\frac{1}{4}$ – $\frac{3}{4}$ grn.), in 5% oily emuls., twice a week.—See also Sodium Cinnamate, in which form most generally used.

(Acid) Cinnamic Anhydride

Phenacrylic Acid Anhydride; Phenpropenylic Acid Anhydride.—($C_6H_5.CH:CH.CO$) $_2O = 278.20$.—Sltly yellow, alm. odorl. & tastl., cryst. powd.—SOL.: Eas. B.; sltly A.; insol. W.—MELT.: $133^\circ C.$

ACID CINNAMYLIC—see Acid Cinnamic

Acid Citraconic—Cryst.

Methylmaleic Acid.— $CH_3.C(COOH):CH.C(COOH) = 130.07$.—Fr. citric acid by dry distill'n.—Yellowish, hygrosc. cryst.; charact. odor.—SOL.: Eas. W., A.; v. eas. E.; sltly cold C.; alm. insol. B., CS_2 .—MELT.: $90^\circ-91^\circ C.$ w. decomp.

Acid Citrazinic

Dioxypyridinecarboxylic Acid.— $HOOC.C_6H_3(CO).NH.(CH_2.CO) = 155.08$.—Fr. amide deriv. of citric acid.—Yellowish powd.; greenish tinge.—SOL.: Diffic. W.; in alkalies, partic. in NH_4OH , w. blue fluoresc.; sol. without decomp. in warm conc. H_2SO_4 .

Acid Citric Merck—Reagent

$H_3C_6H_5O_7 + H_2O = 210.11$.—Colorl., odorl. cryst.—SOL.: Less than 1 W., abt 1.5 A., abt 50 E., at $15.5^\circ C.$

MAXIMUM OF IMPURITIES

Ignition Res.....	0.020%
Oxalic Acid ($H_2C_2O_4$).....	0.05%
Tartaric Acid ($C_6H_6O_6$).....	0.2%
Sulphate (SO_3).....	0.002%
Phosphate (P_2O_5).....	0.001%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals (as Pb) ..	0.0005%

USES: Determ. citrate-soluble H_3PO_4 ; separ.

Fe_2O_3 & Al_2O_3 ; in reag. f. albumin (Mayer; Patein; Riegler), mucin (Lecorché), glucose (Luff), water (Mann), H_3PO_4 (Märcker), Co (Skey), biliary pigments (Spehl), & differentiating betw. albumin & mucin (Grimbert-Dufau).

Acid Citric Merck—C.P.—Cryst., or Powd.

Oxytricarballic Acid. — $COOH.CH_2.C(OH)(COOH).CH_2.CO_2H + H_2O = 210.11$.—Us'y fr. limes & lemons.—Colorl., odorl., v. acid, cryst., or granules; efflor. in warm air, deliq. in moist.—SOL.: Abt 1 W., abt 1.5 A., abt 50 E.

MAXIMUM OF IMPURITIES

Ignition Res.....	0.050%
Oxalic Acid ($H_2C_2O_4$).....	0.05%
Tartaric Acid ($C_6H_6O_6$).....	0.2%
Sulphate (SO_3).....	0.005%
Other Heavy Metals (as Pb) ..	0.001%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

DESCRIPTION & PROPERTIES: As of the preceding.—SOL.: 0.5 W., 1.8 A. abt 30 E., at $25^\circ C.$, & 0.5 boil. W., U.S.P.; (1.5 A. [90%], 2 G., at $15.5^\circ C.$, B.P.C.).—ACTION: Mild Antisep.; Antiscorbutic; Refrigerant.—USES: *Intern.*, cool'g beverage in fevers; scurvy; to prevent blood coagul.—*Extern.*, post-partum hemor.; pruritus; appl. in dipth., angina, gangrenous sore mouth; excess. sweat; sunburn; inflam. throat.—DOSE: 0.3–2 Gm. (5–30 grn.) sev'l t.p.d.; aver. dose, 0.5 Gm. (8 grn.), U.S.P.—APPL.: for paint'g throat, 5%–10% glycerin solut.; gargle, 1%–2%; cool. drink, 5 Gm. (75 grn.) to 1 liter (abt 1 qt.); also f. prepar. lemonade, etc.—VETER. MED., appl. in 10% solut. in dipth.—INCOMPAT.: Potass. tartrate, alkaline carbonates, acetates, & sulphides; mineral acids.—*Techn.*, printing calicoes, as mordant, to brighten colors, & as resist.; in beverages; electroplating; special inks, & in ink eradicators; silvering mirrors; confectionery; manuf.; effervesc. salts & citrates.

ACID CITRIDIC—see Acid Aconitic

ACID CITROSALIC—see Novaspirin

ACID COFFEE-TANNIC—see Acid Caffetannic

(Acid) Columbic Anhydride

Niobium Pentoxide.— $Cb_2O_5 = 266.2$.—Wh., microcryst. powd.—SOL.: HF; insol. mineral acids & W.

Acid Copaivic Merck—Amorphous

Copaiba resin, cont'g the resin-acids of copaiba balsam in amorph. condition.—Transp. brown lumps, dusty superficially, & presenting a sharply angular fracture.—SOL.: A., glac. acetic acid, warm NH_4OH .—USES: Abnorm. disch. of mucous membranes, espec. of urethra.

Acid Cresotic—Technical

Cresotinic Acid; Kresotic Acid.—Mixt. of isomeric cresotic or homosalicyclic (ortho-, meta-,

& chiefly para-) acids.—Wh. or reddish-wh., alm. odorl., loose powd.—SOL.: C.: eas. A., E. & alkal. liquids; diffc. W.—USES: Disinfect. generally & in veter. med. in 1:500 aqu. or soap solut.; manuf. dyes & artif. tannin.

ACID β -CRESOTIC—see Acid *o*-Cresotic

Acid *m*-Cresotic Merck

Metahomosalicylic, Metakresotic, Cresotinic, γ -Cresotic, or Meta[3]oxyparatoluic, Acid— $\text{C}_6\text{H}_3\text{COOH.OH.CH}_3[1:2:4] = 152.10$.—Fr. metacresol.—Wh., cryst. powd.; volat. by steam.—SOL.: C.; eas. A., E.; ethyl acetate; stly W.—MELT.: 176° – 177° C.—USES: Manuf. dyes; not used therapeutically.

Acid *o*-Cresotic

Orthohomosalicylic, Orthokresotic or Cresotinic, Vicinal Cresotic, Betacresotic, Ortho[2]-oxymetatoluic, or Ortho-oxytoluic, Acid.— $\text{C}_6\text{H}_3\text{COOH.OH.CH}_3[1:2:3] = 152.10$.—Fr. orthocresol by Na & CO_2 .—Wh. to stly reddish, odorl., sweetish, cryst. powd.; volat. by steam.—SOL.: C.; eas. A., E.; stly W.—MELT.: 166° – 167° C.—USES: Manuf. dyes; not used therapeutically.

Acid *p*-Cresotic

Parahomosalicylic, Parakresotic or Cresotinic, Alpha-cresotinic, or Para[4] oxymetatoluic, Acid (asymmetric).— $\text{C}_6\text{H}_3\text{COOH.OH.CH}_3[1:2:5] = 152.10$.—Fr. paracresol, Na, & CO_2 .—Wh. or stly reddish, alm. odorl., bitterish cryst. powd.; volat. by steam.—SOL.: C.; eas. A., diffc. W.—MELT.: Abt 152° C. w. previous slt softening.—ACTION: Child's Antipyr.; Antirheumatic; Intest. Antisep.—USES: As of salicylic acid (said to be superior to this because of slighter by-effects) in febrile affections, gastro-intest. catarrh. Sodium salt gen'ly used (*q.v.*).—DOSES: Antipyr., 0.12–1.3 Gm. (2–20 grn.) accord. to age, sev'l t.p.d.; intest. antisept. (childr. dis.), 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.), in mixt.—MAX. D.: Adults, 4 Gm. (60 grn.).—VETER. MED., as intestinal Antisept. & Antipyr.: DOSE: Dogs, 0.25–1 Gm. (4–15 grn.) sev'l t.p.d.—*Extern.*, as dust'g powd. for wounds.

ACID CRESOTIC, VICINAL—see Acid *o*-Cresotic

ACID CRESOTINIC—see Acid Cresotic (*m*-, *o*-, & *p*-)

ACID CRESOTINIC, ALPHA—see Acid *p*-Cresotic

Acid Cresylic

Cresyl; Paracresylol.—Mixture of isomeric cresols, xylenols, etc.—Colorl. liq.; phenolic odor; neutral react.; becomes yellowish to brownish-red on keeping.—SOL.: W.; eas. A., C., E., G., petrol. E., & soluts alkali hydroxides.—SP. GR.: 1.04–1.05 at 15° C.—USES: Antiseptic generally & in sheep dips.

Acid α -Crotonic

$\text{CH}_3\text{CH:CH.COOH} = 86.07$.—Fr. crude wood-vinegar, or synthetically fr. acetoacetic acid by reduct'n w. Na-amalgam.—Colorl. plates or cryst.—SOL.: W., ligroin.—MELT.: 72° C.—BOIL.: 189° C.—USES: organic synthesis.

Acid Cubebic Merck

$\text{C}_{13}\text{H}_{14}\text{O}_7(?) = 282.18(?)$.—Colorless, tastei., amorph., resinous or waxy pieces, grad'ly becoming dark on expos. to air.—SOL.: Eas. A., C., E.; insol. W.—MELT.: 56° C. (is softened by heat of the hand).—USES: Gonorrhea & other catarrhal condit'ns.—DOSE: 0.2–1 Gm. (3–15 grn.) sev'l t.p.d.—CAUT.: Keep fr. light & moisture.

Acid Cuminic

p-Isopropylbenzoic Acid.— $(\text{CH}_3)_2\text{CH}[4]\text{C}_6\text{H}_4\text{COOH}[1] = 164.15$.—Fr. cuminol by oxid'n w. KMnO_4 .—Wh., odorl., tastel., cryst.—SOL.: Eas. A., E.; v. diffc. W.; sol. without decomp. in conc. H_2SO_4 & pptd unchanged by add. W. to solut.—MELT.: 116° – 117° C.

Acid Cyanacetic Merck

$\text{CN.CH}_2\text{COOH} = 85.05$.—Fr. monochloracetic acid or fr. ethyl chloracetate & KCN.—Wh., hygrosc. cryst.; decomp'd by heat into CO_2 & acetonitrile.—SOL.: W., A., E.; diffc. B., C.—MELT.: 69° – 70° C. w. previous softening.—USES: Synthesis of intermediates.

ACID CYANHYDRIC—see Acid Hydrocyanic

Acid Cyanuric Merck—Cryst.

Tricarbimide; Isocyanuric, or Tricyanic, Acid.— $\text{C}_3\text{H}_3\text{O}_3\text{N}_3 = 129.06$.—Fr. urea by heat.—Wh., odorl., cryst. powd.; faint bitterish taste.—SOL.: Stly cold, more eas. in hot, W., & in hot A.—USES: Synthesis of intermediates.

ACID DECOIC } see Acid Capric
ACID DECYLIC }

Acid Dehydracetic

Methylacetylpyronone; 1-Aceto-3-methylpyronone.— $\text{CH}_2(\text{CO.O})\text{CO.CH:C.CH}_2\text{CO.CH}_3 = 168.10$.—Fr. acetoacetic ether by heat.—Wh. or stly yellowish cryst.—SOL.: Diffc. cold A. & cold W.; more eas. hot W.; eas. hot A., & E.—MELT.: Abt 109° – 111° C.

ACID DELPHINIC—see Acid *iso*-Valeric

ACID DEXTROCAMPHORIC—see Acid Camphoric

ACID DEXTROETHYLIDENELACTIC—see Acid Sarcolactic

ACID DEXTRONIC—see Acid Gluconic

ACID DEXTROCEMIC } see Acid
ACID DEXTROTARTARIC, ORDINARY }

ACID DIACETYLANNIC—see Acid Acetylannic

ACID DIALLYLBARBITURIC—see Dial

ACID α -DIAMINO- β -DITHIODILACTYLIC—see Cystine

Acid *p*-Diazobenzenesulphonic

Paradiazobenzenesulphonic Acid; Sulphanilic Acid Diazide.— $\text{C}_6\text{H}_4\text{N:N.O.SO}_2 = 184.14$.—Wh. or stly reddish paste (mkt'd in this form only; readily oxidizes in dry form & is prone to

explode).—**SOL.**: Eas. hot W. & in dil. alkalis: insol. A., cold W.—**USES**: in 1:60 aq. solut. inst. of Ehrlich's reagent in diagnosis of various febrile diseases. Mix eq. parts urine & the reagent & add $\frac{1}{8}$ vol. ammonia—a red color develops in the liquid, & partic. in the foam, in cases of typhoid, pneumonia, measles, etc.: also as test f. phenol. (Amann; Penzoldt-Fischer), fecal matter in W. (Griess), H_2S (Itallie), glucose (Penzoldt), aldehydes (Penzoldt-Fischer), & albumin (Petri); also in manuf. azo & other dyes.

ACID DIAZODIENDICARBOXYLIC, PENTA—see Acid α - β -Imidazolidicarboxylic

ACID DIAZOXYBENZOIC—see Acid Diazosalicylic

Acid Diazosalicylic

Diazoxybenzoic Acid.— $OH.C_6H_3.N.N.CO_2 = 164.08$.—Fr. aminosalicilyl hydrochloride by N_2O_3 .—Brownish-gray powd.—**SOL.**: Hot A., HCl, & HNO_3 .—**USES**: Manuf. dyes; organic synthesis.

ACID DIBROMBARBITURIC—see Dibromin

ACID DIBROMGALLIC—see Gallobromol

ACID DIBROMPROPYLDIETHYLBARBITURIC—see Diogenal

Acid Dibromsuccinic

$COOH.(CHBr)_2.COOH = 275.89$.—Fr. succinic acid by red P & Br.—**Colorl.** cryst. powd.—**SOL.**: Eas. hot W., A., E.—**MELT.**: 250° – 256° C. (w. decomp., in sealed tube).

ACID DIBROMTRIOXYBENZOIC—see Gallobromol

Acid Dichloracetic Merck

Bichloracetic Acid.— $CHCl_2COOH = 128.95$.—Fr. chloral hydrate by KCN.—**Colorl.** liq.; pungent odor.—**Misc.**: Eas. W., A.—**BOIL.**: 194° C.—**MELT.**: 10.8° C.—**Sp. Gr.**: Abt 1.560 at 25° C.—**ACTION**: Caustic.—**USES**: Like trichloracetic acid as eschar. in vener. & skin dis., & f. warts.—*Techn.*, in organic synthesis.

ACID DICINNAMIC, ALPHA—see Acid α -Truxillic

Acid Diethylacetic

Pentan-3-carboxylic Acid.— $(C_2H_5)_2CH.COOH = 116.13$.—Fr. ethyl acetate by Na & C_2H_5I .—**Colorl.** liq.; charact. odor, somewhat resembl. that of caproic acid.—**SOL.**: Eas. A., E.; sltly W.—**Sp. Gr.**: 0.925 at 15° C.—**BOIL.**: 194° – 195° C.

ACID DIETHYLBARBITURIC—see Barbital; Veronal

Acid Diethylmalonic

Pentan-3,3-dimethylacetic Acid.— $(C_2H_5)_2C:(COOH)_2 = 160.13$.—Fr. diethyl malonate, C_2H_5ONa , & C_2H_5I .—**Colorl.**, powd. consist'g of prismatic cryst.—**SOL.**: Eas. W., A., E.—**MELT.**: abt 125° C.—**BOIL.**: 194° C. (decomp'd by heat w. liber'n of CO_2 & form'n of diethylacetic acid).

ACID DIETHYLMALONIC CHLORIDE—see Diethylmalonyl Chloride

ACID DIGALLIC—see Acid Tannic

ACID DIHODOBRASSIDIC ETHYLESTER—see Lipiodine

ACID DIHODOPARAPHENOLSULPHONIC—see Acid Sozoiodolic

Acid Diiodosalicylic

$C_6H_2I_2(OH)(COOH) = 389.91$.—Fr. salicylic acid by I & HgO .—Wh. or sltly yellowish cryst. powd.; faint charact. odor & sweetish-bitter taste.—**SOL.**: Eas. A., C., E.; v. diffic. W.—**MELT.**: 220° – 230° C. w. decomp.—**ACTION**: Analges.: Antipyretic; Antisep.—**USES**: *Intern.*, where salicylates fail, in rheumat., gout; also in blennorrhagic arthritis.—*Extern.*, inst. of iodoform.—**DOSE**: 1.5 Gm. (23 grn.) per day to begin with, and increasing by 0.5 Gm. (8 grn.) per day until 4 Gm. (60 grn.) per day are given.—**MAX. D.**: 2 Gm. (30 grn.).

ACID DILACTIC—see Acid Sarcocollactic

ACID DIMETHOXYALDEHYDOBENZOIC—see Acid Opianic

ACID DIMETHYLACETIC—see Acid *iso*-Butyric

Acid Dimethylaminoazobenzenesulphonic

Sulphobenzeneazodimethylaniline.— $SO_3H.C_6H_4.N_2.C_6H_4N(CH_3)_2 = 305.27$.—Violet cryst. or powd.—**SOL.**: A.; sltly W.—**USES**: Manuf. methyl orange & related dyes constituting the various salts of this acid.

ACID DIMETHYLARSINIC—see Acid Cacodylic

ACID DIMETHYLOXALIC } see Acid Oxyiso-
ACID DIMETHYLOXYACETIC } butyric

ACID DIMETHYLPROTOCATECHUIC—see Acid Veratric

Acid *iso*-Dioxybehenic

$CH_3(CH_2)_7.(CHOH)_2.(CH_2)_{11}.COOH = 372.46$.—Fr. brassidinic acid & alk. solut. $KMnO_4$.—Yellowish cryst.—**SOL.**: Diffic. cold A., E.; eas. warm B., C., hot A.—**MELT.**: 99° – 100° C.

ACID DIOXYBENZOIC, ORTHO—see Acid Protocatechuic

ACID DIOXYPHENYL- α -AMINOPROPIONIC—see Dioxyphephenylalanine

ACID DIOXYPYRIDINECARBOXYLIC—see Acid Citrazinic

Acid Dioxystearic

9,10-Dioxystearinic Acid.— $CH_3(CH_2)_7.(CHOH)_2(CH_2)_7COOH = 316.38$.—High-melting dioxystearin fr. oleic acid by KOH & $KMnO_4$.—Wh., lustr., odorl., tastel. cryst.; fatty feel.—**SOL.**: Hot A. & acetone; scarcely in E: insol. W.—**MELT.**: 131° – 132° C.—**USES**: *Techn.*, manuf. stearic acid comp'ds; in cosmetic & toilet preparations.

ACID DIOXYSTEARINIC—see Acid Dioxystearic

ACID DIOXYSUCCINIC—see Acid Tartaric

ACID DIOXYTRIPHENYLMETHANECARBOXYLIC—see Phenolphthalein

ACID DIPROPYLBARBITURIC—see Propyltal

ACID DISALICYLIC—see Salysal

ACID DISULPHURIC—see Acid Pyrosulphuric

ACID DITHIOXYBENZOIC, ORTHO—see Acid Dithiosalicylic

Acid Dithiosalicylic—II

Orthodithiooxybenzoic Acid; Phenyldisulphide-*o,o*-dicarbonic Acid. — $S_2(C_6H_3.H.CO_2H)_2 = 306.27$.—Fr. salicylic acid & S_2Cl_2 .—Exists in 2 modif., differing by the solub. of their salts.—Yellowish powd.—SOL.: Hot A.; partially in W.—MELT.: $289^\circ C$.—ACTION: Antipyr.; Analg.; Antisep.—DOSE: 0.2 Gm. (3 grn.) sev'l t.p.d.—Only lith. & sod. salts used in medicine.

ACID DODECOIC—see Acid Lauric

ACID DRACONIC—see Acid Anisic

Acid Elaidic

Elaidinic Acid. — $C_{14}H_{26}(CH):(CH.CH_2.CO_2H) = 282.36$.—Fr. stereoisomeric oleic acid by HNO_2 .—Wh. cryst. powd.—SOL.: A., B., C.—MELT.: 44° – $45^\circ C$. (Meyer); 51° – $52^\circ C$. (Saytzev).—BOIL.: $288^\circ C$. at 100 mm.

ACID ELAIDINIC—see Acid Elaidic

ACID ELLAGIC, ANHYDROUS—see Gallogen

Acid Embelic—B.P.C.—Cryst.

$C_{18}H_{32}O_4 = 308.31$.—Fr. fruit Embelia Ribes, Burm.—Orange-red, lustr., tastel. leaflets; fatty feel.—SOL.: In usual hot organic solvents; v. sltly ligroin; insol. W.—MELT.: 140° – $141^\circ C$.—ACTION: Anthelm.—USES: With honey or syrup to expel tape-worms. Castor oil given before & after.—DOSE: 0.2–0.4 Gm. (3–6 grn.). The ammonium salt (*q.v.*) is us'y used.

ACID ENNOIC, NORMAL—see Acid Pelargonic

ACID EQUISETIC—see Acid Aconitic

Acid Ergotic

Acid Ergotinic.—Fr. ergot of rye.—Light-brown, amorph. powd.—SOL.: W., dil. A.—ACTION: Hemostatic.

ACID ERGOTINIC—see Acid Ergotic

"ACID ERYTHRIC"—see Alloxan

ACID ESCULINIC—see Esculin

ACID ETHANAMID—see Acid Oxamic

ACID ETHANETHIOLIC—see Acid Thioacetic

ACID, ETHANOL—see Acid Glycolic

ACID ETHYLACETIC—see Acid Butyric

ACID ETHYLCARBOXYLIC—see Acid Propionic

ACID ETHYLCYCLOHEXYLBARBITURIC—see Phadorn

ACID ETHYLENEDICARBOXYLIC }
ACID ETHYLENESUCCINIC } see Acid Succinic

ACID *d*-ETHYLIDENELACTIC—see Acid Sarcocollactic

ACID ETHYLIDENELACTIC, INACTIVE—see Acid Lactic

Acid Ethylmalonic

$CH_3.CH_2.CH(COOH)_2 = 132.09$; may also contain H_2O .—Fr. malonic acid ester & ethyl iodide.—Colorl., alm. odorl., cryst.—SOL.: B., C.; eas. W., A., E., ethyl acetate.—MELT.: 111° – $112^\circ C$. after drying at $100^\circ C$; at $160^\circ C$. decomp. into CO_2 & butyric acid.—USES: Manuf. barbital or veronal, etc.

Acid Ethylsulphuric

Sulphethylic, or Sulphovinic, Acid; Monoethylsulphuric Acid. — $C_2H_5HSO_4 = 126.12$. — Fr. C_2H_5OH by H_2SO_4 .—Colorl., v. acid liq.—SOL.: v. eas. W., A.—SP. GR.: 1.316 at $17^\circ C$.—USES: *Medic.*, as salt (sodium, zinc, &c.) or as Haller's acid (H_2SO_4 & C_2H_5OH , 1 + 3).—*Techn.*, pptng casein fr. milk in manuf. plastics; plating copper electrolytically; manuf. intermediates & synthetics.

Acid Ethyltartaric

Monoethyl Tartrate. — $C_4H_5O_6.C_2H_5 = 178.11$. — Fr. tartaric acid & boil. absol. A.—Colorl., v. hygrosc., syrupy mass; strong acid react.—MISC.: All proport. W. A.; insol. E.—MELT.: Abt $90^\circ C$.—USES: Printing w. Indol Blue & Crystal Fast Blue on fustian, etc.

Acid *o*-Euchroic

Euchronic Acid. — $C_6(C_2O_2.NH)_2(COOH)_2 = 304.11$.—Fr. ammonium mellitate.—Yellowish cryst.—SOL.: Sltly A., dil. HCl; v. sltly W.—MELT.: Above $280^\circ C$, w. decomp.

ACID EUCHRONIC—see Acid *o*-Euchroic

ACID EUGENIC—see Eugenol

Acid Euxanthic

Purreic, or Euxanthinic, Acid; Euxanthin. — $C_{19}H_{16}O_{10} + 3H_2O = 458.27$.—Fr. purree (Indian yellow).—Straw-yellow, bitterish need.—SOL.: Eas. boil. A. & boil. W., & in alkalies; sltly cold W. or A.; alm. insol. in E. (older statements in literature incorrect).—MELT.: Slowly heated, 155° – $158^\circ C$. w. decomp.

ACID EUXANTHINIC—see Acid Euxanthic

ACID FERROCYANIC—see Acid Ferrohydrocyanic

Acid Ferrohydrocyanic

Ferrocyanic, or Hydroferrocyanic, Acid; Hydrogen Ferrocyanide. — $H_4Fe(CN)_6 = 215.95$.—Wh. cryst. powd.; soon becomes blue in moist air.—SOL.: Eas. A., W.; insol. E.

Acid Filicic—Amorph.

Filicin, crude.—Fr. rhizome of *Dryopteris Filix-mas*, Schott (Male fern).—Yellowish, amorph., odorl., tastel. powd.—MELT.: $125^\circ C$.—SOL.: A., alkalies, fixed oils.—ACTION: Anthelm.—DOSE: 0.5–1 Gm. (8–15 grn.), given w. calomel & powd. jalap.—CAUT.: Must be given with caution, as the amorph. acid exerts a toxic effect. Oils or fats (even castor oil) must not be given either before or after the administration of the acid. Keep in amber bot.

do. —Cryst.

Filicic Acid Anhydride; Isobutyryloxynaphthoquinone. — $C_{14}H_{16}O_5 = 264.20$ (Beil.; Watt);

$C_{35}H_{38}O_{12}$ = 650.30 (Bohm: Real-Enz.).—Fr. rhizome of *Dryopteris Filix-mas*, Schott (Male fern).—SOL.: Eas. B., C., E., CS_2 , oil turpentine, oils, & alkal. solut.; insol. W.; alm. insol. A.—MELT.: Abt 180° C. w. decomp.—Non-toxic; v. little used therapeutically; no action on tenia.

ACID FILICIC ANHYDRIDE—see Acid Filicic

ACID FLUORESCENIC ANHYDRIDE—see Fluorescein

ACID FLUORHYDRIC—see Acid Hydrofluoric

Acid Formic Merck—C.P., abt 85%–90%

Hydrogen Carboxylic Acid; Aminic Acid.— $HCOOH$ = 46.02.—Fr. oxalic acid & G., by heat; & o. proc.—Colorl. liq.; pungent odor; dangerously caustic.—MISC.: W., A., E., G.—SP. GR.: 1.198–1.203 = 24° Bé.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As test for HNO_3 (Cazeneuve-De-fournel), & volat. oils; determ'g menthol in peppermint oil.—CAUT.: Handle w. care. Great pain & ulceration by contact w. skin.

do. Merck—Abt 85%—Sp. Gr. 1.20

DESCRIPT., SOL., & C.: As preced'g.—ACTION: Caustic; Antisep.—CAUT.: Handle w. care.

do. Merck—Abt 50%

Clear, colorl. liq.; pungent odor.—SOL.: W., A., in all proport.—SP. GR.: 1.120–1.125 = 15.5° Bé, at 15° C.—USES: Solvent; decalcifier; reducer in dyeing wool fast colors; dyeing leather, dehairing & plumping hides; tanning, & in sizes; aid in regenerating old rubber; galvanostegia; organic analysis; manuf. dyes, intermediates, & salts & esters of formic acid; electroplating.

do. Merck—Abt 25%—N.F. V—Sp. Gr. 1.060

Colorl., strongly acid liq.—MISC.: All prop. W., A., G.—SP. GR.: Abt 1.058 at 25° C. = 8.5° Bé at 15° C.—ACTION: Diur.; Cardiac & Muscular Ton.; Antirheum.—USES: Lupus, chron. nephritis; rheum., neuralg., sciatica, arthritis deformans, lumbago; inoperable carcinoma, phth., intest. intoxic., second. & tert. syph.—DOSE: 0.3–1.3 cc. (5–20 M); aver. dose 0.3 cc. (5 M); 3–4 cc. (45–60 M) per day; to incr. muscular power, 4–6 cc. (60–90 M) p.d. w. sod. bicarb.; as cardiac stim. in diphth., 0.3–1.3 cc. (5–20 M) ev. 4 hrs in W. w. sod. bicarb.—Subcut., 0.3–0.5 cc. (5–8 M) of 2.5% solut. ev. day or two near painful joints in rheum. & arthritis deformans; 0.1–1 cc. (1½–15 M) 1:10,000–1,000 solut., accord. to age & condit. of patient in lupus & cancer, tuberc., neuritis, gout, neuralgia, etc.—VETER. MED.: 4%–8% alcohol. solut. for rubbing as counter-irritant.

ACID FUCHSINE—see Ruby S

Acid Fumaric

Allomaleic, Paramaleic, or Boletic, Acid; Trans-Butenediacid.— $COOH.CH:(CH.COOH)$ = 116.05.—Fr. malic acid by heat.—Wh., odorl. cryst.—SOL.: Sltly cold, more eas. in hot, W., & A.—MELT.: Abt 286° C. (in sealed tube).—Sublimes at 200° C.

ACID FURANECARBOXYLIC—see Acid Pyromucic

Acid Gallamic

Gallaminic, or Gallamidic, Acid; Gallamid.— $(OH)_3.C_6H_2.CO.NH_2 + 1\frac{1}{2}H_2O$ = 196.12.—Yellowish cryst.—SOL.: Hot W., A., sltly cold W.—MELT.: 243° C.—USES: manuf. dyes.

ACID GALLAMIDIC }
ACID GALLAMINIC } see Acid Gallamic

Acid Gallic Merck—Reagent

$C_6H_2(OH)_3.COOH + H_2O$ = 188.10.—Wh. or pale fawn colored cryst., or cryst. powd.—SOL.: Abt 85 W., abt 6 A.; diffic. E.; alm. insol. C.

MAXIMUM OF IMPURITIES

Insol. Substcs.....	0.000%
Nonvol. Matter.....	0.050%
Sulphate (SO_3).....	0.005%
Excess Water.....	0.000%

USES: Detecting small quantities of ferric salts, e.g. in mineral waters; detect'g free mineral acids; reag. f. dioxycetone (Denigès), alkaloids (Grutterink).

Acid Gallic Merck—U.S.P. IX

Trioxybenzoic, or Trihydroxybenzoic, Acid.— $C_6H_2(OH)_3.COOH + H_2O$ = 188.10.—Us'y fr. tannic acid by dil. H_2SO_4 .—Wh. or pale fawn-colored, odorl. prisms or silky needles.—SOL.: 87 W., 4.6 A. (95%), 10 G., abt 100 E., at 25° C., 3 boil. W., & alm. insol. C.—ACTION: Antisudor.; Hemost.; Astringent.—USES: Intern., hematemesis, hematuria, diarrh., albuminuria, cystic affect'ns, night-sweats, pyrosis, & intest. hemorrhage. Pref'ble to tannin in action; not constip'g.—Extern., Gonorr. & uterine hemorrhage (1:200–100 solut.), epistaxis, alopecia, purpura, menor., & hemorrhoids (1:50 solut.)—Techn., in dyeing, manuf. dyes & intermediates, ink, as developer in photogr., tanning, in chem. anal., & in manuf. pyrogallol.—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose 1 Gm. (15 grn.), U.S.P. IX.—VETER. MED.: In diarrh., cystitis, and nephritis; horses, 3–15 Gm. (45–240 grn.); cattle 10–25 Gm. (2½–6 dr.); sheep, 2–5 Gm. (30–75 grn.); calves & pigs, 1–2 Gm. (15–30 grn.); dogs, 0.1–0.6 Gm. (1½–10 grn.).—INCOMPAT.: Aqu. solut. decomp. in air; ferric salts (bluish-black precip.); $KClO_3$; $KMnO_4$; NH_4OH ; lead acetate; alkali hydroxides & carbonates; opium in solut.; silver salts; oxidizing agents; spirit nitrous ether.—CAUT.: Keep dark, & from contact w. vapors of NH_3 .

ACID GALLIC ANILIDE—see Gallanol

ACID GALLOTANNIC—see Acid Tannic

ACID GENTIANIC—see Gentisin

ACID GENTIANIC, CRUDE—see Gentianin

"ACID GERMANIC"—see Germanium Oxide

Acid Gluconic—Abt 50% Solution

d-Glyconic, Dextronic, Maltonic, or Pentoxycaproic, Acid.— $\text{CH}_2\text{OH}(\text{CHOH})_4\text{COOH} = 196.13 + \text{aq.}$ —Fr. *d*-dextrose & cane sugar by oxid'n w. Cl or Br. Pure gluconic acid, at the ord. temp., passes for the greater part into the lactone; & even the 50% solut. in W. cont's lactone. Gluconic acid is a syrupy liquid & is dextrogyrate although accord. to E. Fischer the pure acid, fully freed fr. anhydride, appears to be sltly levogyrate.—Colorl. odorl., clear liq.—USES: in diabetic coma in large doses (50–70 Gm. (13–18 dr.) together w. up to 140 Gm. (abt $4\frac{1}{2}$ oz.) sod. bicarb., suspended in 500 cc. (abt 1 pint) water & given per os or by enema.

Acid Glutamic Merck

Aminoglutaric, or Amino-normal-pyrotartaric, Acid.— $\text{COOH}.\text{CH}_2.\text{CH}_2.\text{CH}(\text{NH}_2)\text{COOH} = 147.11$.—Fr. casein by boil. w. HCl & SnCl_2 .—Wh. cryst. powd.; acidulous, flat taste; peculiar after taste.—SOL.: Eas. alkalies & dil. acids; diffic. W.; sltly A., B., E.—MELT.: 202° – 203° C. w. decomp. & previous soften'g.

Acid Glutaric

Normal Pyrotartaric Acid; Pentandiacid.— $\text{COOHCH}_2.\text{CH}_2.\text{CH}_2\text{COOH} = 132.09$.—Fr. oxyglutaric acid by heat. w. HI; & o. ways.—Colorl., odorl. cryst.; strong acid taste.—SOL.: B., C.; v. eas. W., A., E., sltly petrol. E.—MELT.: 97° – 98° C. w. slt previous softening.—BOIL.: 302° – 304° C.—USES: Physiologic experiments in diabetes artificially induced (by phloridzin) in animals; the acid checks elimination of sugar by the kidneys.—DOSE: 4 Gm. (60 grn.) where 0.7–1.4 Gm. (11–21 grn.) phloridzin are given to a dog of abt 5 kilos (11 lbs.); & 0.6–1.6 Gm. (10–24 grn.) where 0.2–0.4 Gm. (3–6 grn.) phloridzin are given to a rabbit of abt 2 kilos ($4\frac{1}{4}$ lbs.).—Techn., manuf. intermediates.

ACID GLYCERINOPHOSPHORIC—see Acid Glycerophosphoric

Acid Glycerophosphoric—Abt 50% Solution

Acid Glycerinophosphoric.— $\text{C}_3\text{H}_5(\text{OH})_2.\text{O.P}:\text{O}(\text{OH})_2 = 172.13$; the aqu. acid cannot be conc. without decomp., hence it cont. some H_3PO_4 .—Clear, colorl., odorl., oily liq.; sour taste.—MISC.: A., W.—ACTION: Directly assimilable Nerve Tonic.—USES: Neurasthenia, phosphaturia, tabes dorsalis, &c.; us'y used only in form of its salts (amm., calc., iron, potass., sod., &c.). The acid is, however, employed as an addition to soluts of o. glycerophosphates where such soluts are desired to have an acid reaction.

do. Merck—Abt 25%

PROPERTIES, ACTION, & USES: As of the 50% acid.

Acid Glycocholic Merck

"Cholic Acid" of Strecker & Gmelin; differs fr. Cholic Acid.— $2\text{C}_{20}\text{H}_{31}\text{CHOH}(\text{CH}_2\text{OH})_2\text{CONH}.\text{CH}_2\text{COOH} + 3\text{H}_2\text{O} = 985.05(?)$.—Constit. of ox-gall.—Wh., cryst. powd.—SOL.: Al-

kalis; eas. A., glac. acetic acid; v. diffic. cold & more eas. hot W.; insol. B., C.—MELT.: 132° – 134° C.—Used therap. in form of sod. salt (*q.v.*).—Chem., in organic synthesis.

Acid Glycolic Merck

Glycollic, Oxyacetic, Ethanol, or Hydroxyacetic, Acid.— $\text{CH}_2\text{OH}.\text{COOH} = 76.04$.—Fr. monochloroacetic acid by boil. w. K_2CO_3 .—Colorl., odorl., somewh. hygrosc. cryst.—SOL.: W., A., E.—MELT.: 77° – 79° C.—USES: Techn., manuf. various esters, & in dyeing & printing cotton fabrics.

ACID GLYCOLLIC—see Acid Glycolic

ACID *d*-GLYCONIC—see Acid Gluconic

ACID GLYOXALINDICARBOXYLIC—see Acid α - β -Imidazolidincarboxylic

ACID GOLD CHLORIDE—see Gold Chloride

Acid Graphitic

The formulas $\text{C}_{11}\text{H}_4\text{O}_5 = 216.09$, or $\text{C}_{11}\text{H}_4\text{O}_6 = 232.09$, have been ascribed to this acid; because of its cryst. appearance, partic. when shaken w. W. It has been shown, however, that the acid has no definite chemical compos'n, hence under the name "Graphitic Acid" are grouped all those bodies obtd by treating graphite w. KClO_3 in presence of HNO_3 & H_2SO_4 .—Yellowish-brown, amorph. powd.; becomes somewh. darker on expos. to light.—SOL.: v. sltly W.

Acid Guaiaconic

Guaiaconresinol.— $\text{CH}_3.\text{CH}:\text{C}(\text{CH}_3).\text{CH}(\text{OH}.\text{C}_6\text{H}_3.\text{OCH}_3).(\text{OH})\text{C}_6\text{H}_2.(\text{OCH}_3)_2 = 344.29$.—Fr. guaiac resin.—Yellowish amorph. powd.—SOL.: B., CS₂; eas. A., C., E., ethyl acetate, & conc. H_2SO_4 (w. red color); insol. W.—MELT.: Abt 100° C., but begins to soften at 70° C.—USES: Detecting blood.

Acid Gymnemic

Purif. alcoh. extr. fr. lvs *Gymnema sylvestre*, R. Br.—Yellow, amorph., bitter powd.—SOL.: A., C.; sltly W. or E.—USES: Completely obtunds taste f. sev'l hrs for bitter or sweet (e.g., quinine or sugar), but not for sour, astring., or pung. substcs.—APPL.: In perversion of sense of taste in diabetics, in 1% aqu. solut. painted on the tongue, or as mouth-wash; or, 1 to 2 tea-leaves saturated w. a $2\frac{1}{4}\%$ solut. are chewed.

Acid "Gynocardic" Merck

"Chaulmugric," or "Chaulmoogric," Acid.—Mixt. gynocardic acid, $\text{C}_{21}\text{H}_{40}\text{O}_2$, & chaulmugric acid $\text{C}_{18}\text{H}_{32}\text{O}_2$, fr. oil of seed of *Taraktogenos Kurzii*.—Yellowish-wh., fatty lumps; pecul. odor resembl. that of linseed oil.—SOL.: A., C., E., oils; sltly W.—MELT.: Abt 30° C.—ACTION: Dermic; Alter.; & Antituberc.—USES: Intern., inst. of the oil in leprosy, tuberc., syph., & rheumat.—Extern., as 3%–10% oily solut. in lepra, syph., ichthyosis, chron. skin dis., wounds, ulcers, bruises, sprains, & stiff joints.—DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) in

caps.—MAX. D.: 1 Gm. (15 grn.).—See also Oil Gynocardia.

ACID HEPTADECOIC—see Acid Margaric

ACID HEPTOIC, NORMAL } see Acid Oenanthic
ACID HEPTYLIC }

ACID HEXADECYLIC—see Acid Palmitic

ACID HEXAMETHYLENAMINE SALICYLSULPHONIC
—see Hexalet

ACID HEXOIC, or HEXYLIC—see Acid Caproic

Acid Hippuric Merck—Cryst.

Benzoylaminoacetic, or Benzaminoacetic, Acid;
Benzoylglycin; Benzoglycocol.— $C_6H_5CO.NH.CH_2COOH = 179.13$.—Fr. urine of herbivora.—Wh., odorl. cryst.—SOL.: Eas. hot W., hot A., & aqu. solut. sod. phosphate; abt 300 (600, B.P.C.) cold W., A.; alm. insol. E., insol. B., petrol. E.—MELT.: $190^\circ-192^\circ$ C. w. decomp'n.—ACTION: Antirheum.; Antipodagric; Alter.—USES: Rheum. & gout, in form of ammon., sod. (usually), or lith. salt; not used uncombined.—*Techn.*, Manuf. hippurates, benzoic acid & intermediates, & as a stabilizer of H_2O_2 solut.

ACID HOMOSALICYLIC, META—see Acid *m*-Cresotic

ACID HOMOSALICYLIC, ORTHO—see Acid *o*-Cresotic

ACID HOMOSALICYLIC, PARA—see Acid *p*-Cresotic

ACID HOMOTOLUYLIC—see Acid Hydrocinnamic

"Acid Humic"

Humic Acid.—By decomp. organ. substcs, partic. dead plants; us'y fr. turf.—Chocolate brown, dust-like powd.—SOL.: Aqu. solut. alkalis & alkali carbonates; stlty W.; sol. in hot conc. HNO_3 w. dark-red color.

ACID HUMINIC—see "Acid Humic"

Acid Hydriodic Merck—Sp. Gr. 1.70

Hydrogen Iodide (abt 57% aqu. solut.).—HI = 127.93.—Colorl. or stlty yellowish, strongly acid, fum. liq.; soon becomes brown fr. separ. of I by act. of light & air.—MISC.: All prop. W., A.—SP. GR.: 1.697–1.70 = 60° Bé. at 15° C.—BOIL.: 125° C.—CAUT.: Keep dark & well stoppered.

do. Merck—Sp. Gr. 1.50

Abt 45% aqu. solut. HI.—ACTION: Antirheum., &c.—USES: Inst. of pot. iod. in rheumat., bronch. (acute or chron.), asthma, syph., obesity, Basedow's disease, psoriasis, &c. Elim'g Hg or As fr. system; hasten'g convalesc. fr. measles & pneum.—*Techn.*, manuf. intermediates, dyes, perfumes, iodides; chem. synthesis.—DOSE: 0.3–0.6 cc. (5–10 M) in much sweet. W.—CAUT.: Keep dark & well stoppered.

do. Merck—U.S.P. X, diluted (abt 10%)

Clear, colorl. liq.—SP. GR.: 1.10 at 25° C.—ACTION & USES: As of the 45% acid.—DOSE: 0.5–1.3 cc. (8–20 M); aver. dose, 0.5 cc. (8 M).

—PREP.: Syr. (12.5 Ac. Hydriod. Dil., 30 water, & syrup to 100, all by volume), 1.3–4 cc. (20–60 M).—CAUT.: Keep in amber bots.

Acid Hydrobromic Merck—Reagent—Sp. Gr. abt 1.38–40%

HBr = 80.93.—Clear, colorl., or faintly yellow liq.—MISC.: All proport. W., A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Hydrochloric Acid (HCl) Abt 0.1 %	
Hydriodic Acid (HI).....	0.010%
Phosphorous & Phosphoric	
Acids (as P_2O_5).....	0.005%
Sulphite (SO_2).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.002%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%

USES: Solvent f. Hg, Pb, & Cu, as also their sulphides; detect'g & determ'g S, either free or in sulphides; detect'g palm oil in margarin (Crampton); in organ. synthesis.

Acid Hydrobromic Merck—C.P.—Sp. Gr. 1.38–40%

Bromhydric Acid; Hydrogen Bromide.—HBr = 80.93.—Clear, colorl., or faint-yellow, strongly fuming, acid liq.; darkens on expos. to light.—MISC.: A. & W., all proport.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Hydrochloric Acid (HCl) Abt 0.1 %	
Sulphite (SO_2).....	0.001%
Sulphuric Acid (H_2SO_4).....	0.005%
Arsenic (As).....	0.000%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. —Abt 48%

Clear, alm. colorl., alm. odorl. liq.—MISC.: A. & W., all proport.—SP. GR.: 1.487–1.490 = 48.5° Bé. at 15° C.—BOIL.: 124° C. at 747 Mm.—USES: *Techn.*, manuf. synthetics, intermediates, dyes, perfumes, bromides; in photography; fixing microsc. prep's accord. to Golgi.

do. Merck—Abt 40%

SP. GR.: 1.377–1.380 = 40° Bé. at 15° C.—ACTION: Caustic.—USES: *Extern.*, dil. w. 5 parts W. in diphth.

do. Merck—Conc., 34%

SP. GR. 1.31 = 34° Bé.

do. Merck—Diluted, abt 10%, U.S.P. VIII

Clear, colorl., inodor., strongly acid liq.—MISC.: All prop. W., A.—SP. GR.: 1.076 at 25° C.; 1.077 = 10° Bé., at 15° C.—ACTION: Nervine.—USES: *Intern.*, inst. of potass. bromide, in whoop-cough, vomit. of pregnancy, bronch. & laryng. catarrh, cereb. hyperemia, epilepsy, muscular spasm, hemiplegic chorea, neural., dyspeptic conditions, tinnitus & headache

after quinine, neurasthenia, &c.—*Extern.*, pure or diluted, as caustic applic. in diphth. & in mercurial stomatitis.—*DOSE*: 1–4 cc. (15–60 M).—*ANTID.*: Magnes. carbonate or hydroxide, & alkali carbonates & bicarbonates.

do. —Abt 10%, Fothergill's—B.P.C.

Fr. KBr & tartaric acid; cont's some potass. bitartrate.—Clear, colorl., odorl. liq.—*Sp. Gr.*: Abt 1.1=13° Bé. at 15.5° C.—*USES*: As of the preced'g.—*DOSE*: 1.3–4 cc. (20–60 M).

Acid Hydrochloric Merck—Reagent—36%–37% —Sp. Gr. abt 1.19

HCl = 36.47.—Clear, colorl., fuming liq.; diluted w. sev'l volumes water is odorl. (odorous organic chlorides detected by such dilut'n).—*Sp. Gr.*: Not below 1.18 at 15° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.0005%
Free Chlorine (Cl).....	0.0002%
Sulphuric Acid (H ₂ SO ₄).....	0.0002%
Sulphurous Acid (SO ₂).....	0.003%
Arsenic (As).....	0.00001%
Iron (Fe).....	0.0001%
Other Heavy Metals.....	0.000%

USES: Solvent, partic. for metals & their salts; acidifying; pptng Ag; constit. of Bettendorf's reagent & in Gutzeit's test f. As; distinguishing betw. aliphatic monatomic alcohols.—*ANTID.*: *Extern.*, wipe off acid gently & immed. wash w. plenty water, using soap freely, then cover w. moist magnesia or baking soda; *intern.*, teaspoonful or more magnesia, chalk, whiting, or wall plaster, or small pieces of soap softened w. water, in milk, mucilage, or raw egg albumin.

do. Merck—Reagent—Free fr. As—Sp. Gr. 1.19

PROPERTIES, ETC.: As of preceding.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Free Chlorine.....	0.0005%
Sulphuric Acid (H ₂ SO ₄).....	0.001%
Arsenic (As).....	None
Iron (Fe).....	0.0003%
Other Heavy Metals.....	0.000%

USES: As of preceding but partic. where absence of As is required.

Acid Hydrochloric Merck—C.P., 36%–37% —Sp. Gr. 1.19

Muriatic, or Chlorhydric, Acid; Hydrogen Chloride.—HCl = 36.47.—Clear, colorl., fuming, liq.—*MISC.*: W., A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Free Chlorine (Cl).....	0.003%
Sulphuric Acid (H ₂ SO ₄).....	0.001%
Sulphurous Acid (SO ₂).....	0.003%
Arsenic (As).....	0.0001%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Sp. Gr. 1.16

31%–33% HCl—*DESCRIPT.* & *SOL.*: As preced'g.—*ACTION*: Antisep.; Antipy.; Caustic.—*USES*:

Intern., Abnorm. intest. fermentative processes, summer diarrh. in children, fevers, dyspep., syph., eczema, psoriasis, &c.—*Extern.*, mouth-wash & gargle in 1%–2% solut.—*Techn.*, manuf. chlorides & other chem. comp'ds.—*DOSE*: 0.06–0.6 cc. (1–10 M) in much W.—*VETER. MED.*, horses, 4–8 cc. (1–2 dr.); cattle, 5–10 cc. (1¼–2½ dr.); sheep, 0.5–1 cc., (8–15 M); dogs, 0.06–0.3 cc. (1–5 M).—*ANTID.*: *Extern.*, wipe off acid gently & immed. wash w. plenty water, using soap freely, then cover w. moist magnesia or baking soda; *intern.*, teaspoonful or more magnesia, chalk, whiting, or wall plaster, or small pieces of soap, softened w. water, in milk, mucilage, or raw egg albumin.—*INCOMP.*: Alkalies, silver salts, chlorates, chromates, oxides, permanganates, tartar emetic, lead salts, &c.—*CAUT.*: Poison!

do. Merck—Diluted, 10%, U.S.P. X

31.3 Gm. HCl (U.S.P.) + 68.7 Gm. dist. W.—*Sp. Gr.*: Abt 1.049 = 7° Bé. at 25° C.—*USES*: In dyspep., fevers, some skin dis., &c.—*DOSE*: 0.6–2 cc. (10–30 M) in sweet. W.; aver. dose, 1 cc. (15 M).

do. Merck—Technical, abt 33%

Clear, more or less yellow, fum. liq.; pungent odor.—*Sp. Gr.*: 1.19 = abt 20° Bé. at 15° C.—*USES*: *Techn.*, in manuf. chlorides, gelatin; re-
viving animal charcoal; extract'g copper ores; tanning leather, dehairing hides; tinning & soldering; manuf. coal-tar dyes & aniline & o. amines; dyeing; engraving & etching metals; bleaching oils; photography; reclaiming rubber; manuf. glue, soluble starch, intermediates; chem. synthesis.

do. Merck—Technical, Sp. Gr. abt 1.14

Acid Hydrocinnamic

Hydrocinnamylic, Benzylacetic, Betaphenylpropionic, or Homotolulylic, Acid.—C₆H₅.CH₂.CH₂.COOH = 150.13.—Fr. cinnamic acid by reduct'n w. Na-amalgam or HI.—Wh. cryst. powd.—*SOL.*: Eas. A., B., C., E., glac. acetic acid; stly cold, more eas. hot. W.—*MELT.*: 48°–49° C.—*BOIL.*: 280° C.—*ACTION*: Anti-tuberc.—*USES*: Pulm. tuberc.—*DOSE*: 0.6–1.3 cc. (10–20 M) of 1:6 alcoh. solut. 3 t.p.d. in W.

ACID HYDROCINNAMYLIC—see Acid Hydrocinnamic

Acid Hydrocyanic Merck—Diluted, U.S.P. IX (abt 2%)

Cyanhydric, or Prussic, Acid; Hydrogen Cyanide; Formonitrile.—HCN = 27.02.—Colorl. liq.; odor of vol. oil, bitter almonds.—*Misc.*: W., A.—*ACTION*: Antispasmodic.—*USES*: *Intern.*, allay pain & spasms, relieve nerv. cough, palp., & painful gastric affect.; vomiting, whoop-cough.—*Extern.*, control itching in pruritus, psoriasis, etc.—*Techn.*, the gas is used f. fumigating raw cotton, flour, railroad cars, ships, warehouses, etc., & growing plants, & as a military poison; manuf. intermediates.—*DOSE*: 0.06–0.3 cc. (1–5 M) 3 or 4 t.p.d. after meals; aver. dose, 0.1 cc. (1½ M).—*APPL.*: Abt 2–4 cc. (30–60 M) in abt 30 cc. (1 fl. oz.)

rose W. as lotion, *where skin is intact*.—MAX. D.: 0.6 cc. (10 M).—ANTID.: Kobert recommends 0.001 Gm. ($\frac{1}{80}$ grn.) atropine hypoderm., H_2O_2 intern., & artif. respiration; breathing NH_3 , or Cl fr. chlorinated lime; $FeSO_4$ followed by K_2CO_3 , emetics, warmth.—INCOMP.: Alkalies, silver nitrate, metallic oxides, or carbonates, neutral solut. of morphine salts.—CAUT.: Poisonous! Keep in cool, dark, well stop'd, inverted bottles.

N.B.—Dil. Hydrocyanic Acid is very prone to decomposition, & then becomes more or less brown in color; it is entirely unfit for use when thus discolored. The U.S.P. IX permitted the presence of 0.1% hydrochloric acid, which retards deterioration.

do. Merck—5%

Clear, colorl. liq.; strong, charact. odor resemb. that of volat. oil almonds; the aqu. solut. does not keep well, hence a sm. quant. of HCl is added for preservat. purposes.—USES: Chem.—ANTID. & INCOMP.: As of the preceding.—CAUT.: Extremely poisonous! Keep in cool, dark, well stoppered, & inverted, bottles.

ACID HYDROFERROCYANIC—see Acid Ferrohydrocyanic

ACID HYDROFLUOBORIC—see Acid Borohydrofluoric

Acid Hydrofluoric Merck—Reagent, 48%–49%

HF = 20.01.—Colorl., or alm. colorl., fuming liq.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.003%
Hydrochloric Acid (HCl)....	0.003%
Hydrosilicofluoric Acid (H_2SiF_6).....	0.300%
Sulphuric Acid (H_2SO_4).....	0.003%
Sulphur Dioxide (SO_2).....	0.003%
Heavy Metals.....	0.000%

USES: Analysis of alloys & minerals; separ. Pb & Cu from Sn & Sb in electrolysis; volatilizing vanadic acid; separ. Nb & Ta; decompos'g silicates; determ'g SiO_2 in silicates.—ANTID.: *Extern.*, plenty of water, chalk, sod. bicarbonate; *intern.*, calcined magnesia in water (or milk of magnesia), followed by an emetic.

Acid Hydrofluoric Merck—C.P., 48%–49%

Fluorhydric Acid; Hydrogen Fluoride.—HF = 20.01.—Fr. CaF_2 by H_2SO_4 .—Clear, colorl., or alm. colorl., mobile, fum., corros., hygrosc. liq.—MISC.: W.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.010%
Hydrochloric Acid (HCl)....	0.010%
Hydrosilicofluoric Acid (H_2SiF_6).....	0.500%
Sulphuric Acid (H_2SO_4).....	0.010%
Sulphur Dioxide (SO_2).....	0.010%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. —Medicinal, 40%

DESCRIPTION & SOL.: As preced'g.—ACTION: Antituberc.; Antisep.; Antifermentative.—USES: *Intern.*, by inhal. in phth., dipth., & malaria, in 1–5:25,000 air.—*Extern.*, 1:500–

2000 solut. as antisept. dress. for purulent tuberculous sores.—ANTID.: *Extern.*, plenty of water, chalk, sod. bicarbonate; *intern.*, calcined magnesia in water (or milk of magnesia), followed by an emetic.—CAUT.: Avoid inhaling the vapors, & handle w. care, as it develops serious ulcers on skin. Attacks glass, stoneware, &c. Keep in rubber, gutta-percha, leaden, or paraffin-paper, bottles.

do. Merck—Conc., 52%–55%

Clear, colorl. or sltly colored, fum., corros. liq.—MISC.: All prop. w. W.—USES: Purifying iron & copper vessels; removing efflorescence fr. brick & stone; preserv. anatom. specimens; working over too heavily weighted silks; frosting & etching glass & enamel; polishing crystal glass; cleaning copper & brass; remov'g sand particles in metallic castings; to arrest undesirable ferment'n in brewing (to prevent formation of pernicious quantities of lactic- & butyric-acid-yielding organisms), in proport. of 8–10 Gm. per hectol.; also used in yeast manuf. for similar reasons, & in beet-sugar manuf. for the destruct. of *Clostridium butyricum*; microscopy.—ANTID. & CAUT.: As of the preceding.

do. —Diluted, Abt 0.2%, B.P.C.

ACTION: Antiseptic.—USES: *Intern.*, goiter, phthisis, enlarged spleen (the sodium & ammonium salts are usually employed).—DOSE: 0.3–1 cc. (5–15 M).

ACID HYDROFLUOSILICIC—see Acid Hydrosilicofluoric

ACID HYDROGEN CARBOXYLIC—see Acid Formic

Acid Hydrosilicofluoric Merck—C.P., 27%–30%

Hydrofluosilicic, or Silicofluoric, Acid.— H_2SiF_6 = 144.12.—Colorl. liq.—SP. GR.: Abt 1.29–1.31 = 33° Bé. at 15° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.15 %
Chloride (Cl).....	0.020%
Sulphate (SO_3).....	0.050%
Heavy Metals.....	Trace

USES: Chem. analysis, f. detect'g K (insol. silicofluoride formed).—CAUT.: Poison! Keep in rubber stoppered bots.

do. —Technical

USES: Hard'n'g cement, & crumbling lime or brick work; manuf. enamels; preserv. timber & tanning liquors; prevent. & remov. mold, dry rot, & fermentation; disinf. copper & brass (not iron) vessels; preserv'g oil pigments; electroplating.—ANTID.: *Extern.*, plenty of water, chalk, sod. bicarbonate; *intern.*, calcined magnesia in water (or milk of magnesia), followed by an emetic.—CAUT.: Poison! Has a caustic action. Keep in rubber stoppered bots.

ACID HYDROXYACETIC—see Acid Glycolic

ACID HYDROXYBENZOIC, ORTHO—see Acid Salicylic

ACID HYDROXYETHYLENESULPHONIC—see Acid Isethionic

ACID HYDROXYNAPHTHOIC—see Acid α -, or β -, Oxynaphthoic

ACID HYDROXYPROPIONIC—see Acid Lactic

ACID HYOCHOLALIC—see Acid α -Hyocholic

Acid α -Hyocholic

Hyocholalic Acid.— $C_{25}H_{40}O_4=404.44$.—Deriv. of hyoglycocholic acid.—Yellow, bitter powd.—**SOL.**: Sltly W., eas. A., E.

Acid β -Hyoglycocholic

$C_{26}H_{43}NO_5=449.48$.—Fr. hog bile.—Yellowish-brown powd.—**SOL.**: W., A., in solut. of alkalis or alkali carbonates.—**MELT.**: 100° C.

Acid Hypophosphorous Merck—Abt 50%

$H_2PO.OH=66.06$.—Clear, colorl., odorl., liq.; oily consistency.—**MISC.**: All prop. W.—**De-comp.** at high temp.—**Sp. GR.**: 1.269–1.275 = 31° Bé. at 15° C.—**ACTION**: Stim.; Tonic.—**USES**: Wasting & nerv. dis.—**DOSE**: 0.12–0.3 cc. (2–5 M) well diluted.—**CAUT.**: Keep dark & well stoppered.

do. Merck—30%–32%, U.S.P. X

Colorl., or sltly yellow, odorl. liq.—**MISC.**: All prop. W.—**Sp. GR.**: Abt 1.130 at 25° C.; abt 1.136 at 15° C.

do. Merck—Diluted, 10%, U.S.P. IX

Colorl., odorl. liq.—**Sp. GR.**: 1.042 at 25° C.; 1.046 = 6.5° Bé. at 15.5° C.—**ACTION**: Stim.; Tonic.—**USES**: Wasting & nerv. dis.—**DOSE**: 0.3–4 cc. (5–60 M); aver. dose, 0.5 cc. (8 M).—**INCOMPAT.**: Arsenic comp'ds; chromates; cupric & ferric salts; iodine; permanganates; H_2SO_4 ; H_2SO_3 .

Acid α - β -Imidazoldicarboxylic

Glyoxalindicarboxylic, or Penta 1.3. Diazodien-dicarboxylic 4.5. Acid.— $\overline{CH:N.C(COOH):C(NH).COOH}=156.07$.—Fr. methenamine & NH_3 .—Colorl. to faintly yellow cryst. powd.—**SOL.**: NH_4OH & alkalis; insol. A., E.; alm. insol. W.

Acid Indigodisulphonic

Indigosulphuric, Sulphindigotic, or Sulphindiglic, Acid; Soluble Indigo Blue.— $C_{16}H_8(HSO_3)_2N_2O_2=422.30$.—Fr. indigo & fum'g H_2SO_4 .—Amorph., blue mass or paste.—**SOL.**: W., A.—**USES**: *Techn.*, reagent; dyeing, &c.

ACID INDIGOSULPHURIC—see Acid Indigodisulphonic

ACID INDOLAMINOPROPIONIC—see Tryptophan

Acid Iodic Merck—C.P.—Cryst.

$HIO_3=175.93$.—Colorl. or sltly yellowish cryst., or cryst. powd.—**SOL.**: Eas. W. (0.5 W., B.P.C.), somewhat in 87% A., insol. absol. A., E.—At abt 170° C. decomp. into I_2O_5 & H_2O .

MAXIMUM OF IMPURITIES

Nonvol. Matter..... 0.075%
Iodide (I)..... 0.010%

USES: *Chem.*, as oxidizer; in organic anal. & synthesis; prepar'g volumetric soluts.; volumetric determ. of Hg; in reagents f. bile pigments (Capranika), adrenalin (Fränkel; Krauss), guaiacol (Guerin), morphine (Jassoy; Lefort; Serrulas), emetine (Peroni), acetoacetic acid (Riegler), strychnine (Selmi), sulphocyanic acid (Solera), & naphthols (Vincent).—*Medic.*, as

Antisept.; Hemostatic; Deodorant; Caustic.—*Intern.*, inst. of potass. iodide; in gastric hemorrhage & vomiting; struma.—*Extern.*, 1:500 solut. to deodorize putrid wounds, & offensive urine, in ozena, as mouthwash, & vaginal wash in fetid cancerous growths; as caustic pencil (15%) or 1%–3% solut. in chron. trachoma, syphilitic ulcers, etc.; in corneal ulcer, pannus, torpid ulcers, & infiltrations in 1%–3% solut. or 1.5% oint.; as hemostatic in 5% solut.; in diphtheritic angina, 1:800 W. w. 50 G.; inst. of iodof. in 5%–10% solut.; for nose, 10% solut. or oint.; f. throat, 1:4 boric acid; in gonorrh., 0.05%–1% solut. or oint.; also in inoperable epithelioma, burns (1:500 solut.); 5%–10% oint. in rheumatic affections, & to promote resorption of exudates & glandular enlargements.—**DOSE**: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) well dil., 3 t.p.d. Us'y used in medicine in form of its salts.—**VETER. MED.**, as caustic in eye diseases; otherwise as of sod. iodate.—**INCOMPAT.**: When triturated dry w. combustible substcs (P, S, C, organic matter) inflames & deflagrates.

(Acid) Iodic Anhydride Merck

Iodine Pentoxide; so-called "Anhydrous Iodic Acid."— $I_2O_5=333.84$.—Wh., cryst. powd.—**SOL.**: W. or dil. A. w. form. of HIO_3 ; insol. absol. A., C., E., CS_2 .—**MELT.**: At 300° C. w. decomp.—**USES**: *Techn.*, powerful oxidizer.—**INCOMPAT.**: When triturated dry w. combustible substcs (P, S, C, organic matter) inflames & deflagrates.

"ACID IODIC ANHYDROUS"—see (Acid) Iodic Anhydride

Acid β -Iodopropionic

$CH_2.I.CH_2.COOH=199.98$.—Yellowish cryst. leaflets; charact. odor.—**SOL.**: v. eas. A. E., & hot W., sltly cold W.—**MELT.**: 82° C.—**USES**: Organic synthesis.

Acid mono-Iodosalicylic

Monoiodo-ortho-hydroxybenzoic or 3-Iodosalicylic, Acid.— $C_6H_3.I.OH.COOH[3:2:1]=264.00$.—Fr. salicylic acid by boil. w. A. & I.—Wh., cryst. powd.—**SOL.**: A., E.; alm. insol. W.—**MELT.**: 198° – 199° C.—**ACTION**: Antirheum.; Antisep.—**USES**: Acute artic. rheumat.—**DOSE**: 1–3 Gm. (15–45 grn.) p.d.

Acid o-Iodosobenzoic

$C_6H_4.IOH.O.CO=264.00$.—Fr. iodobenzoic acid by fum'g HNO_3 , or by $KMnO_4$ & H_2SO_4 .—Wh. cryst.—**SOL.**: Alkalies, hot W. & hot A.; alm. insol. cold W., & cold A.; v. sltly E.—**MELT.**: 244° C. w. decomp.—**ACTION**: Antiseptic.

Acid Iodotannic—Solution

Iodotannin.—5 Gm. powd. iodine & 25 Gm. tannin diss. by shak'g in 20 Gm. 90% A. & 50 Gm. W.—Dark-brown liq.—**USES**: Inject. in gonor. in 1%–2% aqu. solut.

ACID IRON CHROMATE—see Iron Dichromate

ACID ISATINIC ANHYDRIDE, or LACTIME—see Isatin

ACID ISATROPIC, GAMMA—see α -Truxillic

Acid Isethionic—50% Solution

Hydroxyethylenesulphonic, or Oxyethylsulphonic, or β -Oxyethan- α -sulphonic, Acid.—(OH).CH₂.CH₂(SO₂OH) = 126.12.—Fr. absol. A. by SO₃.—Syrupy liq.—Misc.: All prop. W.

ACID ISOBUTYLACETIC—see Acid *iso*-Caproic

ACID ISOBUTYRIC—see Acid *iso*-Butyric

ACID ISOCAPROIC, or ISOCAPRONIC—see Acid *iso*-Caproic

ACID ISOCHLORCROTONIC—see Acid *iso*-Chlorcrotonic

ACID ISOCYANURIC—see Acid Cyanuric

ACID ISOHEXOIC—see Acid *iso*-Caproic

ACID ISONAPHTHOIC—see Acid β -Naphthoic

ACID ISOPROPYLACETIC—see Acid *iso*-Valeric

ACID ISOPROPYLBENZOIC, PARA—see Acid Cuminic

ACID ISOPROPYLBROMPROPENYLBARBITURIC—see Noctal

ACID ISOPROPYLFORMIC—see Acid *iso*-Butyric

ACID ISOTARTARIC—see Acid Metatartaric

ACID ISOTROPIC—see Acid *iso*-Tropic, α or β

ACID ISOVALERIC, ANHYDROUS—see Acid *iso*-Valeric, Monohydrated

ACID ISOVALERIC, HYDRATED—see Acid *iso*-Valeric, Trihydrated

Acid Itaconic

Methylenesuccinic Acid.—CH₂:C(CH₂.COOH).COOH = 130.07.—Fr. citric acid by dry distil.—Yellowish, hygrosc. cryst.; characteristic odor.—SOL.: Eas. W., A.; diff. E.; alm. insol. B., C., CS₂, & petrol. E.—MELT.: 161°–162° C. w. part decomp.

ACID KAKODYLIC—see Acid Cacodylic

ACID KINIC—see Acid Quinic

ACID KRESOTIC—see Acid Cresotic; also Acid *m*-Cresotic, *o*-Cresotic & *p*-Cresotic

Acid Lactic Merck—Reagent—Sp. Gr. 1.21–85%

CH₃.CH(OH).COOH = 90.06.—Clear, colorl., or sltly yellowish, odorl. or alm. odorl., syrupy, optically inactive liq.—MISC.: W., A., E., but not w. B., C., CS₂.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Hydrochloric Acid (HCl).....	0.002%
Sulphuric Acid (H ₂ SO ₄).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Substcs Reduc'g Cu.....	None
Organic Impurities.....	0.000%

USES: Constituent of alkaline Cu soluts. for detect'g & determ'g reducing sugars; reagent f. glucose (Carrez), pyrogallol (Carletti), phenol & salicylic acid (Itallie), savin oil (Jaworowski); electrolytic determ'n of Co & Ni; in microscopy, in 1% or more conc. solut. as a decalcifier.

Acid Lactic Merck—C.P., 85%—Sp. Gr. 1.21

CH₃.CH(OH).COOH = 90.06.—Clear, colorl., or sltly yellowish, syrupy liq.—MISC.: W., A., E.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Hydrochloric Acid (HCl).....	0.003%
Sulphuric Acid (H ₂ SO ₄).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Substcs Reduc'g Cu.....	None

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Sp. Gr. 1.2

Alphahydroxypropionic, or Inactive Ethyldenelactic, Acid.—85%–90% CH₃.CH(OH).COOH = 90.06.—Fr. milk- or grape-sugar by lactic ferment.—Colorl. or sltly yellow, syrupy, alm. inodor., v. sour liq.; absorbs moisture fr. air.—MISC.: All proportions W., A., E.; insol. C., CS₂, petrol. benzin.—ACTION: Cautic; Astring.; Digestive; Sed.; Antidiab.—USES: *Intern.*, dyspep., vesical catarrh, infant. & tropical diarrh., tuberculous diarrh., diabetes, croup, cholera.—*Extern.*, solvent (20% solut.) of false membr. (diphth.); in alopecia, otorrhea, ozena, endometritis, tuberc. affect. of mouth, esoph., & larynx; laryngeal papillomata, lupus (as paint, paste, or 50% inj.), conjunctival & scleral tuberc., leucorrhea; in dentistry f. remov'g tartar fr. teeth; in inoper. carcinoma (0.25%–1% solut.); as caustic in diphth., alopecia, tuberc. affect. of mouth, etc., in 50%–80% solut.; in cervical gonorrh. the pure acid is injected just beneath membrane.—DOSE: 1.3–2 cc. (20–30 M); aver. dose, 2 cc. (30 M).—*Techn.*, in lemonades (2–3:1000).—VETER. MED.: *Intern.*, in colic & dysentery in calves (tablespoonful doses of 2%–5% solut.).—*Extern.*, picking up nails, osseous fistula; in contag. vaginitis of cattle (2% wash).—INCOMPAT.: Oxidizing agents; HI; HNO₃; albumin.

do. Merck—75%, U.S.P. VIII

SP. GR.: 1.206 at 25° C. = 1.21 at 15.5° C. = 25° Bé.

do. —Technical, abt 44%

Yellow or brown liq.—MISC.: All proport. W., A., E.—USES: Inst. of tartar bath in dyeing; as mordant in print'g woolen goods; solvent for water-insolub. dyes (alcohol-soluble induline, nigrosine, spirit-blue); reducer of CrO₃ in mordanting wool; manuf. cheese, confectionery; in brewing f. acidulating worts; f. remov. Clostridium butyricum in manuf. yeast; in tanning as dehairer & as mordant & decalcifier of hides; as flux f. soft solder; as preservative.

do. —Technical, abt 22%

Yellow or brown liq.—MISC.: W., A.—USES: Dyeing; preservative.

do. Merck—Diluted, 10%

Clear, colorl. liq.—SP. GR.: 1.04.

(Acid) Lactic Anhydride

$\text{CH}_3.\text{CHOH}.\text{CO}_2.\text{CH}(\text{CH}_3).\text{COOH} = 162.11$.—Fr. lactic acid by heat.—Pale yellow, amorph. mass.—**SOL.**: Sltly W.; eas. A., E.—Decomp. at 250° – 260° C.

ACID LAEVULINIC—see Acid Levulinic

ACID LARICIC—see Acid Agaricic

Acid Lauric

Laurinic, Laurostearic, or Dodecoic, Acid.— $\text{CH}_3(\text{CH}_2)_{10}.\text{COOH} = 200.25$.—Fr. oil of bay.—The first of the fatty acids of the series $\text{C}_n\text{H}_{2n}\text{O}_2$ distil'g not undecomposed at ord. pressure.—Wh., cryst. powd.; slt odor of oil bay.—**SOL.**: Eas. A., B., E.; sltly W.—**MELT.**: 43° – 44° C.—**BOIL.**: 225° C. at 100 Mm.

ACID LAURINIC

ACID LAUROSTEARIC } see Acid Lauric

ACID LEPARGYLIC—see Acid Azelaic

ACID LEVO-OXYSUCCINIC—see Acid Malic

Acid Levulinic Merck—White

Laevulinic, or Beta-acetylpropionic, Acid.— $\text{CH}_3.\text{CO}(\text{CH}_2)_2.\text{COOH} = 116.09$.—Fr. canesugar, starch, etc., by boil. w. dil. H_2SO_4 .—Colorl. cryst.—**SOL.**: W., A., E.—**MELT.**: Abt 33° C.—**BOIL.**: 245° C.—**USES**: As solvent in dyeing textiles w. indulines.—**CAUT.**: Keep well stoppered & protect fr. heat.

ACID LITHIUM URATE—see Lithium Urate

ACID MAGENTA—see Ruby S

ACID MAGNESIUM PHOSPHATE—see Magnesium Biphosphate

ACID MAGNESIUM SULPHATE—see Magnesium Bisulphate

Acid Maleic

Maleinic Acid; *cis*-Butendiacid.— $\text{COOH}.\text{HC}:\text{CH}.\text{COOH} = 116.05$.—Fr. malic acid by distil.—Wh. cryst.; faint, acidul. odor; charact., repulsive, astring. taste.—**SOL.**: Glac. acetic acid; eas. W., A., acetone; alm. insol. B.—**MELT.**: Abt. 130° C.—**USES**: Manuf. intermediates; dyeing & finishing wool, cotton & silk.

ACID MALEIC, PARA—see Acid Fumaric

ACID MALEINIC—see Acid Maleic

Acid Malic Merck—Cryst.

levo-Oxysuccinic, or Apple, Acid.— $\text{COOH}.\text{CH}_2.\text{CH}.\text{OH}.\text{COOH} = 134.07$.—Fr. unripe fruits; us'y of *Pyrus aucuparia*, Gaertner (Mountain ash); also synthet. by oxid'n of benzene hydrocarbons.—Colorl. cryst.—**SOL.**: W., A.—**MELT.**: 100° C. w. previous softening.—**ACTION**: Antiscorbutic; Antipyr.—**USES**: *Intern.*, phth., catarrh, hoarseness.—*Extern.*, in 5% aqu. solut. as inhalat. in croup & dipth.—*Techn.*, Manuf. intermediates, & as test f. delphinine (Tattersall), & citric acid (Devarda).—**DOSE**: 0.06–0.3 Gm. (1–5 grn.), & up to 8 Gm. (2 dr.).

Acid Malonic

Methanedicarboxylic Acid; Propanediacid.— $\text{COOH}.\text{CH}_2.\text{COOH} = 104.05$.—Fr. monochloroacetic acid, by KCN.—Sm., wh. cryst.—**SOL.**:

E.; eas. W., A.—**MELT.**: Abt 134° C. w. decomp.—Sublimes in vacuo.—**USES**: Manuf. hypnotics (barbital, etc.), & intermediates.

ACID MALTONIC—see Acid Gluconic

ACID MANDELIC, INACTIVE, or RACEMIC—see Acid Amygdalic

Acid Margaric

Margarinic, or Heptadecoic, Acid.— $\text{CH}_3(\text{CH}_2)_{15}.\text{COOH} = 270.36$.—Fr. cetyl cyanide by boil. w. alcoh. KOH; as glycerin-ester, a constit'nt of many fats.—Wh., transp. cryst., or wh., amorph. powd.—**MELT.**: 60° – 61° C.—**BOIL.**: 227° C. at 100 Mm.

ACID MARGARINIC—see Acid Margaric

Acid Meconic Merck—Cryst.

3.Oxy-1.4.pyron-2.6.dicarboxylic, or, 3.Oxychelidonic, Acid.— $\text{C}(\text{OH}):\text{C}(\text{COOH}).\text{O}.\text{C}(\text{COOH}):\text{CH}.\text{CO} + 3\text{H}_2\text{O} = 254.15$.—Fr. opium.—Wh., lustr. cryst.—**SOL.**: Eas. A., hot W., sltly cold W.; v. sltly C.; decomp. when boiled w. W.—**USES**: Effect'g solut. of insolub. opium alkaloids w. which it forms soluble salts; also test f. alkaloids (Grutterink). Formerly employed in asthma, convulsions, & tape worm; stated to be not poisonous, & also inactive.

ACID MECONINIC ANHYDRIDE—see Meconin

ACID MELLIC—see Acid Mellitic

Acid Mellitic

Mellic, or Benzenhexacarboxylic, Acid.— $\text{C}_6(\text{COOH})_6 = 342.11$.—As mellite (honey-stone), combined w. alumina in brown-coal veins.—Wh., cryst. powd.—**SOL.**: Eas. W., A.—**MELT.**: 286° – 288° C. (in sealed tubes).—**USES**: Test f. alkaloids (Grutterink).

ACID MENAPHTHOXYLIC—see Acid α -Naphthoic

Acid Mesaconic

Methylfumaric Acid; Methylbutenediacid (trans- form).— $\text{COOH}.\text{C}(\text{CH}_3):\text{CH}.\text{COOH} = 130.07$.—Fr. citraconic acid by boil. w. HNO_3 or NaOH.—Colorl. or sltly yellow, cryst. powd.—**SOL.**: A., E., hot W.; diffic. cold W.; alm. insol. B., C., CS_2 , petrol. E.—**MELT.**: Abt 204° C.—**BOIL.**: 250° C. w. decomp.

ACID METACETONIC—see Acid Propionic

ACID METACRESOTIC—see Acid *m*-Cresotic

ACID METACRESYLIC—see *m*-Cresol

ACID, METAGUMMIC—see Cerasin from Gum

ACID METAHOMOSALICYLIC } see Acid *m*-Cresotic

ACID METAKRESOTIC }

ACID METAMETHYLPROTOCATECHUIC—see Acid Vanillic

ACID METAMINO BENZOIC—see Acid *m*-Amino benzoic

ACID METAMINOSALICYLIC HYDROCHLORIDE—see Acid *m*-Aminosalicylic (Hydrochloride)

ACID METANITRO BENZOIC—see Acid *m*-Nitrobenzoic

ACID METANITROHYDROXYBENZOIC, ASYMMETRIC—see Acid *m*-Nitrosalicylic

ACID METANITROSALICYLIC, VICINAL—see Acid Anilotic

ACID METAPOXYBENZOIC—see Acid *m*-Oxybenzoic

ACID METAPOXYPARATOLUIC—see Acid *m*-Cresotic

Acid Metaphosphoric Merck—Reagent

Glacial, or Meta, Phosphoric Acid.— $\text{HPO}_3 = 80.05$.—Colorl., glassy, deliques., cylindrical sticks, or pieces.—SOL.: W. (solut. unstable).

MAXIMUM OF IMPURITIES

Hydrochloric Acid (HCl).....	0.002%
Nitric Acid (HNO_3).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.010%
Reduc'g Substcs (as H_3PO_3)..	0.020%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.020%
Iron (Fe).....	0.015%
Other Heavy Metals.....	0.000%

USES: Reag. f. albumin (Berzelius; Blum; Bruylants; Griggi; Hindenlang), glucose (Herzfeld), soap in lubricating oils (Jean), & primary amines (Schlomann).

Acid Metaphosphoric Merck—C.P.—Sticks

Glacial, or Meta, Phosphoric Acid.— $\text{HPO}_3 = 80.05$.—Transp., h'ly deliq., colorl., glassy lumps or sticks; strongly acid react. The usual article of commerce contains considerable quantities of sodium metaphosphate, added in order to obtain the preparation in the desired form.—SOL.: A.; v. eas. W. In aqu. solut. the acid grad. changes into orthophosphoric acid, the change being much hastened by prolonged boiling.

MAXIMUM OF IMPURITIES

Hydrochloric Acid (HCl).....	0.005%
Nitric Acid (HNO_3).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.020%
Arsenic (As).....	0.002%
Iron (Fe).....	0.030%
Other Heavy Metals.....	0.001%

USES: *Chem.*, as of the Reagent, above; also prepar'g dental cements.—*Medic.*, as of phosphoric acid.

ACID METAPHTHALIC—see Acid *iso*-Phthalic

ACID METAPYRIDINECARBOXYLIC—see Acid Nicotinic

ACID METARABIC—see Cerasin from Gum

Acid Metatartratic

Isotartaric Acid.— $\text{C}_2\text{H}_4\text{O}_2(\text{COOH})_2 = 150.07$.—Fr. tartaric acid by fusion.—Amorph., gummy, yellowish-white, hygrosc. mass; sour taste.—SOL.: W.—MELT.: 120°C .

ACID METATOLUYLIC—see Acid *m*-Toluic

ACID METHANECARBOXYLIC—see Acid Acetic

ACID METHANEDICARBOXYLIC—see Acid Malonic

ACID METHENEPROTOCATECHUIC—see Acid Piperonylic

ACID *p*-METHOXYBENZOIC—see Acid Anisic

ACID METHYLACETIC—see Acid Propionic

ACID METHYLAMINOACETIC—see Sarcosin

Acid mono-Methylarsenic

Methylarsinic Acid.— $\text{CH}_3\text{AsO}(\text{OH})_2 = 140.00$. Wh., monoclin., eas. decomp., odorl. plates.—SOL.: A.; eas. W.—MELT.: 160° – 161°C .

ACID METHYLARSINIC—see Acid mono-Methylarsenic

ACID METHYLBENZOIC—see Acid *o*-Toluic

ACID METHYLCROTONIC—see Acid Tiglic

ACID METHYLENECITRYLSALICYLIC—see Novaspirin

Acid Methylenedigallic

$\text{CH}_2:(\text{C}_6\text{H}[\text{OH}]\text{COOH})_2 = 352.17$.—Fr. formaldehyde & gallic acid.—Wh. cryst. powd.—SOL.: Alkalies; insol. cold, diffic. in hot, W.—USES: In form of bismuth salt (Bismal).

ACID METHYLENEPROTOCATECHUIC—see Acid Piperonylic

ACID METHYLENESUCCINIC—see Acid Itaconic

ACID METHYLFUMARIC—see Acid Mesaconic

ACID METHYLGUANIDINEACETIC—see Creatin

ACID METHYLMALEIC—see Acid Citraconic

ACID METHYLOXYBENZOIC—see Acid Anisic

ACID METHYLOXYPHENYLQUINOLINECARBOXYLIC—see Isatophan

ACID METHYLPARAOXYBENZOIC—see Acid Anisic

ACID METHYLPHENYLFORMIC—see Acid *o*-Toluic

ACID METHYLPHENYLQUINOLINECARBOXYLIC—see Paratophan

ACID, METHYLPROPANOL—see Acid Oxyisobutyric

ACID *m*-METHYLPROTOCATECHUIC—see Acid Vanillic

ACID METHYLSUCCINIC—see Acid Pyrotartaric

Acid Methyltartaric

Monomethyl Tartrate.— $\text{C}_4\text{H}_5\text{O}_6\text{CH}_3 = 164.09$.—Fr. tartaric acid by boil. w. methyl A.—Wh., v. hygrosc., cryst., v. acid mass.—SOL.: Eas. W.

Acid Molybdic Merck—Reagent—Abt 85% MoO_3

Compos'n variable.—Wh. or sltly yellowish powd.—SOL.: NH_4OH ; solut's of fixed alkalies.

MAXIMUM OF IMPURITIES

Matter Insol. in NH_4OH	0.000%
Chloride (Cl).....	0.005%
Phosphate (P_2O_5).....	0.0005%
Sulphate (SO_3).....	0.15%
Heavy Metals.....	0.000%

USES: Determ. As, Pb, Bi; reag. f. H_2O_2 (Bacovesco), phenol & alcohol (Davy), H_3PO_4 (Fairbank; Winton), albumin (Fröhde), W. in A. & E. (Mann), alcohol (Merck), arom. oxy comp'ds (Stahl), & hydrogen (Zenghelis).

Acid Molybdic Merck—C.P., 85%

Compos'n variable.—Wh. or sltly yellowish powd.—SOL.: NH_4OH & fixed alkalies.

MAXIMUM OF IMPURITIES

Matter Insol. in NH_4OH	0.000%
Phosphate (P_2O_5).....	0.002%
Heavy Metals.....	0.000%

USES: As of the Reagent, above; the *technical* grade is also used f. dying silk & manuf. dyes.

(Acid) Molybdic Anhydride Merck—Reagent—99%-100% MoO₃

MoO₃ = 144.00.—Sltly yellowish (sometimes bluish) powd.—SOL.: NH₄OH, & in soluts. of fixed alkalis.

MAXIMUM OF IMPURITIES

Matter Insol. in NH ₄ OH.....	0.000%
Chloride (Cl).....	0.002%
Nitrate (N ₂ O ₅).....	0.003%
Phosphate (P ₂ O ₅).....	0.0005%
Sulphate (SO ₃).....	0.005%
Ammonium Compds (NH ₃) ..	0.004%
Heavy Metals.....	0.000%

USES: As of Acid Molybdic Reagent, & where absence of ammonia & nitrates required; constituent of Fröhde's reagent f. alkaloids.

(Acid) Molybdic Anhydride Merck—C.P., 99.5%-100%

Molybdic Anhydride; Molybdenum Trioxide.—MoO₃ = 144.00.—Light-yellow powd.; often exhibits a slight bluish tinge (o. molybd. oxides).—SOL.: NH₄OH; fixed alkalis.

MAXIMUM OF IMPURITIES

Matter Insol. in NH ₄ OH.....	0.000%
Chloride (Cl).....	0.003%
Nitrate (N ₂ O ₅).....	0.003%
Phosphate (P ₂ O ₅).....	0.002%
Sulphate (SO ₃).....	0.050%
Ammonium Compds (NH ₃) ..	0.004%
Heavy Metals.....	Trace

USES: As of the Reagent, above.

ACID MONOBROMACETIC—see Acid *mono*-Bromacetic

ACID α -MONOBROMBUTYRIC—see Acid α -*mono*-Brombutyric

ACID MONOBROMOPROPIONIC, ALPHA—Acid α -*mono*-Brompropionic

ACID MONOBROMSUCCLNIC—see Acid *mono*-Bromsuccinic

Acid Monochloracetic Merck—C.P.

CH₂Cl.COOH = 94.49.—Fr. hot glac. acetic acid & Cl gas.—Very deliq., colorl., cryst.—SOL.: W., A., B., C., E.—MELT.: Abt 62° C.—BOIL.: 186° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.05 %
Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.15%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%
Organic Impurities.....	Trace

USES: *Chem.*, in organ. synthesis.—*Medic.*, as Caustic; Vesic.—*Extern.*, warts, corns, &c., in conc. solut.—*Techn.*, manuf. intermediates, & various dyes.—CAUT.: Handle carefully!

ACID MONOCHLOROCROTONIC—see Acid α -Chlorocrotonic

ACID MONOETHYLSULPHURIC—see Acid Ethylsulphuric

ACID MONOIODO-ORTHOHYDROXYBENZOIC—see Acid *mono*-Iodosalicylic

ACID MONOIODOSALICYLIC—see Acid *mono*-Iodosalicylic

ACID MONOPARABROMOBENZOIC — see Acid *p*-*mono*-Brombenzoic

ACID MORINTANNIC, or MORITANNIC—see Mac-lurin

Acid Mucic Merck

Saccharolactic Acid.—COOH.(CH.OH)₄.COOH = 210.11.—Fr. lactose by oxid'g w. HNO₃; also fr. pentosans fr. corn.—Wh., cryst. powd.—SOL.: Hot W. & dil. alkalies; alm. insol. cold W., A., E.—MELT.: 213°–214° C. w. decomp.—USES: Organ. synthesis; also inst. of potass. bitartrate in baking powd., & manuf. gran. effervesc. salts.

ACID MURIATIC—see Acid Hydrochloric

Acid Myristic

CH₃(CH₂)₁₂.COOH = 228.29.—Fr. expressed oil nutmeg by saponif.—Wh., odorl., cryst. powd.—SOL.: Eas. A., B., C., hot E., & glac. acetic acid; insol. W.—MELT.: 54° C.—USES: Manuf. esters used in perfumery.

ACID MYRISTIC GLYCERIDE—see Myristin

ACID NAPHTHALENECARBOXYLIC—see Acid α -, or β -, Naphthoic

Acid β -Naphthalenesulphonic

2. Naphthalenesulphonic Acid.—C₁₀H₇.SO₃H + H₂O = 226.19.—Fr. naphthalene & H₂SO₄ at above 170° C.—Colorl. to sltly brownish, non-hygrosc., cryst. leaflets; fatty feel.—SOL.: Eas. W.—MELT.: 124°–125° C.—USES: 5% aqu. solut. as a v. sensit. test f. albumin, albumoses, & peptones (Riegler; Landgraf), & f. microscop. detect'n of alkaloids (Grutterink).

ACID NAPHTHIONIC—see Acid α -Naphthylaminesulphonic

Acid α -Naphthoic

Naphthalenealphacarboxylic, or Menaphthoxylic, Acid.—C₁₀H₇.COOH = 172.12.—Fr. alpha-naphthonitrile by heat'g w. NaOH & A.—Colorl. to sltly reddish scales or needl.—SOL.: Sltly W.; eas. A., C., E., NH₄OH & soluts NaOH & hot Ba(OH)₂ (from latter the Ba salt cryst. on cool.).—MELT.: 160° C.—USES: *Medic.*, antisept.—*Techn.*, manuf. aniline dyes.

Acid β -Naphthoic

Isonaphthionic, or Naphthalenebetacarboxylic, Acid.—C₁₀H₇.COOH = 172.12.—Fr. betanaphtholnitrile by heat. w. NaOH & A.—Colorl. to yellowish cryst. need.—SOL.: A., E., & solut. NaOH; sltly hot W.—MELT.: 184° C.—USES: *Techn.*, manuf. aniline dyes.

ACID NAPHTHOLCARBOXYLIC—see Acid α -, or β -, Oxynaphthoic

Acid α -Naphthylaminesulphonic

Naphthionic, or 1.4-Naphthylaminesulphonic, or Alphanaphthylaminealphasulphonic, or Sulphonaphthylaminic, Acid; Piria's Acid.—2(C₁₀H₆.NH₂.SO₃H)+H₂O = 464.40.—Fr. alphanitronaphthalene by boil. w. (NH₄)₂SO₃.—Wh. to sltly reddish-yellow, volum. powd., or small, light, silky, odorl., tastel. need.—SOL.: Abt 4000 cold, more eas. hot, W.; scarcely in A.;

alm. insol. E.; eas. in solut. KOH, $\text{Ca}(\text{OH})_2$, $\text{Ba}(\text{OH})_2$, & NH_4OH , & in soluts. of salts of weak acids, e.g., H_2CO_3 & acetic acid, in which the weak acids are replaced by the naphthylaminesulphonic acid.—USES: Antidote in nitrite poisoning, in acute iodism & chron. cystitis.—*Techn.*, manuf. azo dyes.—DOSE: 0.5 Gm. ($7\frac{1}{2}$ grn.) ev. 3–4 hrs.

Acid β -Naphthylaminesulphonic

Naphthylaminesulphonic Acid; Brönnner's Acid.— $\text{C}_{10}\text{H}_6(\text{NH}_2)[2].\text{SO}_3\text{H}[6] + \text{H}_2\text{O} = 241.21$.—Fr. betanaphtholsulphonic acid by heat'g w. NH_3 .—Brownish-wh. powd.—SOL.: v. sltly W.; more eas. alkali soluts.—USES: Mfg dyes.

Acid Nicotinic

Meta- (or Beta-) pyridinecarboxylic Acid.— $\text{C}_5\text{H}_4\text{N}[1]:\text{COOH}[3] = 123.08$.—Fr. quinolinic acid & HCl by heat.—Wh. cryst. powd.—SOL. Diffic. cold, eas. hot W., & boil. A.; alm. insol. E.—MELT.: 228° – 229° C.

Acid Nitric Merck—Reagent—Sp. Gr. 1.40–1.42

68%–70% $\text{HNO}_3 = 63.02$.—Clear, colorl., or at most sltly yellowish liq.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.0010%
Hydrochloric Acid (HCl)....	0.0001%
Iodic Acid (as I).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.0002%
Arsenic (As).....	0.000003%
Calcium (Ca).....	0.002%
Iron (Fe).....	0.0001%
Other Heavy Metals.....	0.000%

USES: Solvent, espec. f. metals; acidifying; oxidizing; nitrating organic comp'ds; w. KClO_3 f. determ'g S & P in organ. bodies, & in the Carius method f. S, P, & halogens.

Acid Nitric Merck—C.P.—Sp. Gr. abt 1.42

Hydrogen Nitrate; Aqua Fortis.—Abt 69%–70% $\text{HNO}_3 = 63.02$.—Fum'g, suffoc. v. caustic, strongly acid, corros. liq.—MISC.: All prop. W.; decomp's A. w. violence.—BOIL.: Abt 120° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.003%
Hydrochloric Acid (HCl)....	0.0003%
Iodic Acid (as I).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.001%
Arsenic (As).....	0.00002%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—67%–69%, U.S.P. X

PROPERTIES, SP. GR., BOIL., &c.: As preced'g.—USES: *Intern.*, see Acid Nitric, Diluted.—*Extern.*, as an eschar. f. warts, small tumors, dog & snake bites, cancer, etc.—*Techn.*, in pharm. & chem.; see also Acid Nitric Technical.—VETER. MED., for tumors, neoplasms, warts, cancer of the frog, etc.—ANTID.: *Extern.*, wipe off gently, immed. wash w. plenty water, using soap freely, then cover w. moist magnesia or baking soda; *intern.*, teaspoonful or more magnesia, chalk, whiting, or wall plaster, or small pieces of soap softened

w. water, in milk, mucilage, or raw egg albumin.—CAUT.: Keep in amber, glass-stop. bot.!

do. Merck—Technical, abt 67%

Colorl. or sltly yellowish, fum'g, corros. liq.—Misc.: W.—SP. GR.: $1.40 = 42^\circ$ Bé. at 15° C.—USES: *Techn.*, etching copper & steel; in mordants f. dyeing hats & furs; manuf. nitroglycerin & nitrobenzene, picric acid, intermediates, gun cotton, & other explosives & nitro comp'ds, rubber substitutes, chemicals, aniline dyes; etc.; photoengraving; dipping brass & bronze wares; manuf. celluloid, nitrates.

do. Merck—Technical, abt 61%

SP. GR.: $1.38 = 40^\circ$ Bé. at 15° C.

do. Merck—Technical, abt 56.5%

SP. GR.: $1.35 = 38^\circ$ Bé. at 15° C.

do. Merck—Technical, abt 52%

SP. GR.: $1.33 = 36^\circ$ Bé. at 15° C.

do. —Diluted, 10% by wt.—U.S.P. VIII; B.P.

10 Gm. 68% acid + 58 Gm. W., U.S.P. VIII; 15.1 Gm. B.P. acid w. dist. W. to make 100 cc.—SP. GR.: 1.054 at 25° C.; 1.057 at 15.5° C.—Colorl., strongly acid liq.—MISC.: All prop. W.—ACTION: Antiper.; Antipyr.; Alter.—USES: *Intern.*, interm. fever, dysent., bronch., syph., diab., whoop.- cough, & febril dis.—*Extern.*, in irritant foot-baths, & as applic. to chilblains.—DOSE: 0.3–1.3 cc. (5–20 M).

Acid Nitric Fuming Merck—C.P.—Sp. Gr. 1.5

Nitrosonitric acid.—Clear, usually reddish-yellow, strongly fum. & corros. liq. consist. of conc. HNO_3 cont'g N_2O_4 in solut.; on expos. to light soon bec. reddish-brown & then evolves suffoc. yellowish-red vapors.—MISC.: W.

MAXIMUM OF IMPURITIES

Nonvol. Substcs.....	0.005%
Hydrochloric Acid (HCl)....	0.001%
Sulphuric Acid (H_2SO_4).....	0.003%
Arsenic (As).....	0.0000%
Heavy Metals.....	0.000%

USES: Chiefly techn. as oxidizer, solvent, & as azotizer; in metallurgy, & manuf. aniline dyes & explosives.—ANTID.: *Extern.*, wipe off gently, immed. wash w. plenty water, using soap freely, then cover w. moist magnesia or baking soda; *intern.*, teaspoonful or more magnesia, chalk, whiting, or wall plaster, or small pieces of soap softened w. water, in milk, mucilage, or raw egg albumin.—CAUT.: Handle w. care!

Acid m-Nitrobenzoic

Metanitrobenzoic Acid.— $\text{C}_6\text{H}_4.\text{COOH}.\text{NO}_2$ [1:3] = 167.08.—Fr. benzoic acid & HNO_3 by boil'g.—Wh. or sltly yellowish, bitter cryst.—SOL.: Eas. A., E., alkalies; v. sltly W., B., C.; insol. ligroin.—MELT.: 141° C. (after being dried over H_2SO_4).—USES: Test f. alkaloids (Grutterink); manuf. intermediates.

Acid o-Nitrobenzoic

Orthonitrobenzoic Acid.— $\text{C}_6\text{H}_4.\text{COOH}.\text{NO}_2$ [1:2] = 167.08.—Fr. benzoic acid, KNO_3 , &

H₂SO₄.—Yellowish-wh., intensely sweet cryst.—**SOL.**: Eas. A., E., alkalies; v. sltly W., B., C.; insol. ligroin.—**MELT.**: 147°–148° C.—**USES**: Manuf. intermediates.

Acid *p*-Nitrobenzoic

Paranitrobenzoic, or Nitrodracyle, Acid.—C₆H₄.COOH.NO₂[1:4]=167.08.—**Fr.** *p*-nitrotoluene by oxid'n w. KMnO₄.—Pale-yellowish, bitter, odorl., cryst., powd.—**SOL.**: Hot W.; eas. A., E., acetone, alkalies; v. diffc. cold W., B., C.; insol. ligroin.—**MELT.**: 238° C. (w. prev. softening).—**USES**: Test f. alkaloids (Grutterink); manuf. intermediates; chief raw material f. manuf. procaine.

ACID NITRODRACYLIC—see Acid *p*-Nitrobenzoic

Acid Nitrohydrochloric Merck—N.F. V

Aqua Regia; Nitromuriatic, Chloronitrous, or Chlorazotic, Acid.—18 cc. HNO₃ (U.S.P.) & 82 cc. HCl (U.S.P.).—**Fum'g.** yellow, corros., suffoc., volat. liq.; strongly acid; diss. gold leaf.—**Misc.**: All prop. W.—**USES**: See Acid Nitrohydrochl. Dil.—**ANTID.**: Same as of other mineral acids.—**CAUT.**: Keep cool in amber bot.

do. Merck—Diluted, N.F. V

10 cc. HNO₃, 45.5 cc. HCl, + W. to make abt 250 cc.; (B.P.: 6 mils HNO₃ [B.P.], 8 mils HCl [B.P.], & 50 cc. W.).—**Colorl.**, or pale straw-colored strongly acid liq.; faint chlorine odor.—**Misc.**: All prop. W.—**ACTION**: Antipyr.; Alter.; Digest.—**USES**: Jaund., dyspep., biliary calculi, chronic rheumat., & fevers.—**DOSE**: 0.3–1.3 cc. (5–20 M), dil'd w. water.—**APPL.**: Diluted to sourness of vinegar, as sponge-, foot-, or general bath, daily 2–3 t.p. week.—**ANTID.**: As of o. mineral acids.—**CAUT.**: Keep in amber bot.

ACID NITROMURIATIC—see Acid Nitrohydrochloric

Acid Nitro-opianic

C₁₀H₉NO₇ = 255.13.—Yellow cryst.—**SOL.**: A.; sltly in cold, more eas. hot W.—**MELT.**: 166° C.

ACID NITROPHENISIC—see Trinitrophenol

Acid *o*-Nitrophenylpropionic

C₆H₄(NO₂)C(COOH) = 191.09.—**Fr.** *o*-nitrocinnamic acid by Br & KOH.—Yellowish to light-brown scales or cryst. powd.—**SOL.**: Hot W. w. decomp.; v. sltly cold W.; eas. A., & alkalies.—**MELT.**: 155° C. w. decomp'n.—**USES**: Test f. glucose (Baeyer; Bottu; Gerhardt; Hoppe-Seyler; Quirini; Ruini), & alkaloids (Brunner-Strzyzowski); manuf. synthetic indigo; indigo dyeing; in physiological investigations.

Acid *m*-Nitrosalicylic

Asymmetric Metanitrohydroxybenzoic Acid.—C₆H₃.COOH.OH.NO₂[1:2:5] = 183.08.—**Fr.** salicylic acid in glac. acetic acid by HNO₃.—Yellowish cryst.—**SOL.**: A., hot W.—**MELT.**: 230° C.—**USES**: Manuf. intermediates & azo dyes.

ACID NITROSONITRIC—see Acid Nitric Fuming

ACID NITROXANTHIC—see Trinitrophenol

ACID NONOIC—see Acid Pelargonic

ACID NONYLCARBOXYLIC—see Acid Capric

ACID NONYLIC—see Acid Pelargonic

ACID NUCLEIC—see Acid Nucleinic

Acid Nucleinic Merck—Fr. Yeast

Nucleic Acid.—Fine yellowish-white powd.; slt odor of yeast.—**SOL.**: W. w. acid react.; insol. A., E.; the aqu. 1:50 solut. is sltly milky, the 1:120 solut. v. sltly opalesc. & aml. colorl.; also eas. & clearly sol. in NH₄OH & solut. alkalies.—**ACTION**: Tonic; Nervine; Diur.; Uric Acid Solvent.—**USES**: Chiefly as sod. salt, in uric-acid diathesis; tuberculosis; syph.; rachitis; laparotomy; anemia; paralysis; ascites; gastric, intest., & uterine operations; to cause leucocytosis.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.) 3 t.p.d.—*Subcut.*, 1 cc. (15 M) of 5% solut. of sodium nucleinate (q.v.).

do. —Fr. Animal Cell Nuclei

C₄₃H₅₇N₁₅O₃₀P₄ = 1387.95 (Steudel).—Slty reddish, loose, non-hygrosc. powd.—**SOL.**: Slty W. w. acid react. to litmus paper.—**USES**: As of preceding.

ACID NUCLEOTINPHOSPHORIC—see Acid Thyminic

ACID OCTOIC, or OCTYLIC, NORMAL—see Acid Caprylic

Acid Oenanthic

Normal Heptoic, Heptylic, or Oenanthylic, Acid.—CH₃(CH₂)₅COOH = 130.15.—**Fr.** oenanthol by heat. w. K₂Cr₂O₇ & H₂SO₄.—**Colorl.** to sltly yellowish, oily, liq.; slt tallow-like odor.—**SOL.**: A., E.—**MELT.**: –11° to –10° C.—**BOIL.**: Abt 223° C.—**SP. GR.**: 0.919–0.923 at 15° C.—**USES**: Organ. synthesis.

ACID OENANTHYLIC—see Acid Oenanthic

Acid Oleic—Purest—Free fr. Linoleic Acid

Oleic Acid. —CH₃(CH₂)₇.CH:CH(CH₂)₇.COOH = 282.36.—**Colorl.** or v. sltly yellowish, odorl., oily liq.—**SOL.**: Eas. A., B., C., E., fixed & vol. oils; insol. W.—**SP. GR.**: 0.893–0.896 at 15° C.—**SOLIDIF.**: Abt 3° C.—**USES**: Inst. of olive oil in biliary colic.—*Techn.*, as test f. fibers (Manea), & in investig. waters.—**DOSE**: 1 cc. (15 M) in gelat. caps. morn. & eve.; as prophyl. in biliary colic, 0.5–1 cc. (8–15 M) for 10 consecutive days during a month.

do. Merck—U.S.P. X

Yellowish or brownish-yellow, oily liq.—**SOL.**: A., B., C., E., oils, petrol. E., CS₂; insol. W.—**SP. GR.**: Abt 0.895 at 25° C., U.S.P.; (0.890–0.910 at 15.5° C., B.P.).—**SOLIDIF.**: Abt 4° C.—**USES**: Chiefly for prep. oleates.—**INCOMP.**: HNO₃; HNO₂.—**CAUT.**: Darkens & decomp. on expos. to air. Keep cool, well corked.

do. Merck—Technical, Light Color

Pale yellow to yellow liq.—**SOL.** & **SP. GR.**: Approx. as of the U.S.P. X oleic acid.—**USES**: *Techn.*, as of the following.

do. Merck—Technical

Red Oil.—Yellowish-brown to reddish-brown liq.—**SOL.**: Eas. A., B., C., E.; insol. W.—**SP. GR.**: 0.890–0.900.—**USES**: *Techn.*, polishing comp'ds, manuf. soft soaps & fabrics, waterproofing textiles, oiling wool, manuf. dryers,

thickening lubricating oils; manuf. Turkey red oil.

ACID OLEIC GLYCERIDE—see Triolein

ACID OLEINIC—see Acid Oleic

Acid Opianic

5.6. Dimethoxy-2. aldehydobenzoic Acid.— $(\text{CH}_3\text{O})_2\text{C}_6\text{H}_2(\text{CHO})\cdot\text{COOH} = 210.13$.—Fr. narcotine by oxid'n w. MnO_2 & H_2SO_4 or HNO_3 .—Wh. cryst. powd.—Sol.: A., E.; 400 cold, 60 hot, W.—MELT.: 145° – 146°C .—USES: Test. f. alkaloids (Grutterink).

ACID ORTHOAMINO BENZOIC—see Acid *o*-Amino-benzoic

ACID ORTHOAMINO BENZOYLFORMIC, ANHYDRIDE—see Isatin

ACID ORTHOCRESYLIC—see *o*-Cresol

ACID ORTHODIOXY BENZOIC—see Acid Protocatechuic

ACID ORTHODITHIOOXY BENZOIC—see Acid Dithio-salicylic

ACID ORTHOHOMOSALICYLIC—see Acid *o*-Cresotic

ACID ORTHOHYDROXY BENZOIC—see Acid Salicylic

ACID ORTHOHYDROXY BENZOIC, MONOiodo—see Acid *mono*-Iodosalicylic

ACID ORTHOIODOSOBENZOIC—see Acid *o*-Iodoso-benzoic

ACID ORTHOKRESOTIC—see Acid *o*-Cresotic

ACID ORTHONITRO BENZOIC—see Acid *o*-Nitroben-zoic

ACID ORTHO-OXY BENZOIC—see Acid Salicylic

ACID ORTHO-OXYDIPHENYL CARBOXYLIC—see Acid Phenylsalicylic

ACID ORTHO-OXYMETATOLUIC—see Acid *o*-Creso-tic

ACID ORTHO-OXYMETHYL BENZOIC ANHYDRIDE—see Phthalide

ACID ORTHO-OXYPHENYL SULPHONIC—see Aseptol

ACID ORTHO-OXYTOLUIC—see Acid *o*-Cresotic

ACID ORTHOPHENOLSULPHONIC—see Aseptol

ACID ORTHOPYRIDINE CARBOXYLIC—see Acid Picolinic

ACID ORTHOSULPHOCARBOLIC—see Aseptol

ACID ORTHOTOLUYLIC—see Acid *o*-Toluic

Acid Osmic Merck

Osmium Tetroxide; Osmic or Perosmic Anhy-dride; "Perosmic Acid."— $\text{OsO}_4 = 254.90$.—Col-orl. to sltly yellowish, acicular, hygros., cryst., sensit. to light; v. pungent, Cl-like, disagr. odor; strongly attacks eyes & respir. organs.—Sol.: Slowly in W. (17 W., B.P.C.); decomp'd by A. & E.—MELT.: Abt 90°C ., but softens at abt 35°C .—BOIL.: Abt 100°C .—ACTION: Anti-neural.; Discut.; Antiepil.—USES: *Intern.*, epil., musc. rheum., neuralg.—*Extern.*, sciatica, pe-ripheral & trigeminal neuralg. & nerve extrac-tion, remov. tumors (sarcoma, lymphoma), cancer, goiter, lumbago, pulpitis.—*Techn.*, mi-crochem. test (1% solut.) f. fatty substcs & nerve substce; detect. indican in urine (Gürber), & adrenalin (Mulon); manuf. incandes. lamps;

photogr.—DOSE: 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.) 3 t.p.d. (in pill w. kaolin).—*Hypoderm.*, 0.3–1 cc. (5–15 M) of 1% aqu. solut.=0.003–0.01 Gm. ($\frac{1}{20}$ – $\frac{1}{6}$ grn.) in sciatica & lumbago; in neural., 10 drops of 2% solut. directly into nerve; in cancer as Flemming's solut. (15 cc. 1% CrO_3 solut. 4 cc. 2% OsO_4 solut., 1 cc. glac. acet. acid) up to 8 cc. (120 M) being inj. at the periphery, or 1 cc. (15 M) directly into upper surface of tumor; in bone fractures 5 cc. (75 M) 1% solut. subcut.; in pulpitis, 3% solut. in E. inst. of formaldehyde.—MAX. D.: 0.01 Gm. ($\frac{1}{6}$ grn.) single; 0.02 Gm. ($\frac{1}{30}$ grn.) p.d.—ANTID.: H_2S gas by inhal.—INCOMP.: Organic substcs, P, FeSO_4 , iodides, etc.—CAUT.: Vapor exceed. irrit. to air passages. Handle cau-tiously. Protect fr. light & air. Best kept in aqu. solut., or in sealed glass tubes.

Acid Oxalic Merck—Reagent—Cryst.

$\text{H}_2\text{C}_2\text{O}_4 + 2\text{H}_2\text{O}$, or $(\text{COOH})_2 + 2\text{H}_2\text{O} = 126.06$.—Colorl. cryst., efflorescent in dry air.—Sol.: Abt 10 W., abt 2.5 A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.003%
Sulphate (SO_3).....	0.002%
Ammonium Comp'ds (NH_3)...	0.001%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Prepar'g volumetric soluts.; reducer (e.g., pptg gold); separat'g alkalies, Mg., & rarer earths (Ce, Zr, Th, etc.); detect'g & determ'g Ca, PbO_2 , MnO_2 ; electro-analysis of Cu, Sn, Cd; dehydrat'g agent in condensations (Anschütz); reagent f. indol (Angeli), H_2O_2 (Bach), colchicine (Barillot), morphine (Barillot; Chastaign), ergot (Böttger), urea (Brücke), boric acid (Cassal), H_2S (Ganassini), methyl alcohol (Hellriegel), cane sugar (Lorin), & Ti (Piccard).

Acid Oxalic Merck—C.P.—Cryst.

$\text{H}_2\text{C}_2\text{O}_4 + 2\text{H}_2\text{O} = 126.06$.—Fr. CO_2 & NaOH ; formerly fr. cellulose (sawdust) by fus. w. KOH & NaOH , or by oxid'n of sugar w. HNO_3 .—Transp., colorl. cryst.; v. acid taste.—Sol.: 10 cold, 3 boil., W., 2.5 cold, 1.8 boil., A; abt 100 E.; insol. B., C., petrol. E.—MELT.: 98° – 100°C .—Sublimes, when anhydrous, at abt 100°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.003%
Nitrate (N_2O_5).....	0.010%
Sulphate (SO_3).....	0.004%
Ammonium Comp'ds (NH_3)...	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, as an Emmen.; Expector.; Sed.; *intern.*, in funct. amenor., acute cystitis, bronchitis & asthma.—DOSE: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) ev. 4 hrs as emmen.—MAX. D.: 0.5 Gm. (8 grn.) single; 1.5 Gm. (24 grn.) p. d.—ANTID.: Magnesia, chalk, or whiting, suspended in much water, followed by emetic (tablespoonful mustard in tumbler warm water).—INCOMP.:

Iron & salts; calcium salts, alkalies, arsenates.
—CAUT.: Poisonous!

do. Merck—C.P.—Gran.

do. Merck—Cryst. or Powd.

Colorl., odorl. cryst., or powd., permanent in air, but effloresc. when warm; acid taste & react.—SOL.: Eas. W., v. eas. A.—USES: Calico printing & in dyeing; tanning; bleaching straw (hats) & leather; removing rust & ink stains; manuf. starch, blue ink, dextrin, formic acid, celluloid, gas mantles, intermediates & dyes; in polishes for metals; discharge in indigo dyeing; purifying glycerin, fats & oils; clean'g wood, & metals; in paint & varnish removers.

Acid Oxalmolybdic Merck

Oxalmolybdenic Acid.— $\text{H}_2(\text{MoO}_3[\text{C}_2\text{O}_4]) + 1 \text{ or } 2 \text{ H}_2\text{O}$.—Colorl. cryst.—SOL.: W.—USES: For sympathetic ink.

Acid Oxamic

Oxaminic, or Ethanamid, Acid.— $\text{CO}(\text{NH}_2) \cdot \text{COOH} = 89.04$.—Fr. $\text{NH}_4\text{HC}_2\text{O}_4$ by heat.—Wh. cryst. powd.—SOL.: Diffic. W.; alm. insol. absol. A. & E.—MELT.: 210°C . w. decomp.

ACID OXAMINIC—see Acid Oxamic

ACID OXYACETIC—see Acid Glycolic

ACID OXYACETYLAMINOPHENYLARSENIC—see Spirocid

Acid *m*-Oxybenzoic

Metaoxybenzoic Acid.— $\text{C}_6\text{H}_4(\text{OH})\text{COOH}[1:3] = 138.08$.—Fr. *m*-aminobenzoic acid by HNO_2 .—Wh., cryst., sweet powd.—SOL.: A.; sltly cold, eas. hot, W.; alm. insol. C.—MELT.: 200°C .—USES: Manuf. intermediates & azo dyes.

ACID *o*-OXYBENZOIC—see Acid Salicylic

Acid *p*-Oxybenzoic

Paraoxybenzoic Acid.— $\text{C}_6\text{H}_4(\text{OH})\text{COOH}[1:4] + \text{H}_2\text{O} = 156.10$.—Fr. *p*-aminobenzoic acid by HNO_2 .—Colorl. cryst.—SOL.: A., E.; eas. hot W.; alm. insol. C.—MELT.: Abt 210°C .—USES: Manuf. Synthetics (e.g., guaiacol), & intermediates.

ACID OXYBENZOIC—see Acid *m*-, or *p*-, Oxybenzoic; Acid Salicylic

Acid β -Oxybutyric

Inactive Betaoxybutyric, or 3-Butanol, Acid.— $\text{CH}_3 \cdot \text{CHOH} \cdot \text{CH}_2 \cdot \text{COOH} = 104.08$.—Fr. acetoacetic acid by Na-amalgam.—Viscid, sltly colored, hygrosc., syrupy liq.; pecul. pungent odor.—SOL.: W., A., & E., in all proport.—BOIL.: Abt 130°C . at 12–14 mm.—SP. GR.: 1.148 at 15°C .—USES: Manuf. intermediates.

ACID OXYCHELIDONIC—see Acid Meconic

ACID OXYDIPHENYLCARBOXYLIC, ORTHO—see Acid Phenylsalicylic

ACID OXYETHYLSULPHONIC, or β -OXYETHAN- α -SULPHONIC—see Acid Isethionic

Acid Oxyisobutyric

Normal, or Alpha-oxyisobutyric, Acetonic, Dimethyloxalic, Dimethyloxyacetic, 2-Methyl-2-propanol, or Butyllactic, Acid.— $(\text{CH}_3)_2\text{C} \cdot$

$(\text{OH}) \cdot \text{COOH} = 104.08$.—Fr. acetone by HCN & dil. HCl.—Colorl., hygrosc. cryst. need. or prisms; faint, pecul. odor.—SOL.: v. eas. W., A., E.; partly volat. w. steam.—MELT.: 77° – 79°C . in sealed tubes, & when recently sublimed (traces of moisture greatly influence the melt-pt).—BOIL.: 212°C .

ACID OXYISOPROPYL-METHYLBENZENE-SULPHONIC—see Acid Thymolsulphonic

ACID OXYMALONIC—see Acid Tartronic

ACID OXYMETATOLUIC, ORTHO—see Acid *o*-Cresotic

ACID OXYMETATOLUIC, PARA-, ASYMMETRIC—see Acid *p*-Cresotic

Acid α -Oxynaphthoic

Alphahydroxy(oxy)naphthoic, Alphanaphtholcarboxylic, 1-Naphthol-2-carboxylic, or Alphacarbonaphthoic, Acid.— $\text{C}_{10}\text{H}_6 \cdot \text{OH} \cdot \text{COOH}[1:2] = 188.12$.—Fr. sodium- α -naphthol & CO_2 by heat.—Colorl. to reddish, cryst. powd.—SOL.: B.; eas. A., E.; sltly W.; the metal salts are sltly sol.—MELT.: 185° – 187°C .; when slowly heated, decomp'd w. evol. of CO_2 bef. melt., & then eas. melts a few degrees lower.—ACTION: Antiparasitic; Antizym.; Antipyr.; Sternut.—USES: Intern., intest. disinf. (reported 5 times stronger than salicylic acid).—Extern., in scabies & prurigo (5%–10% oint.); coryza; as vulnerary (in substage); as vaginal wash; applied also as 0.5% collodion, & as 1% cotton.—Techn., manuf. dyes & intermediates.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.).—VETER. MED.: As 5%–10% oint. in scabies.

Acid β -Oxynaphthoic

Betahydroxynaphthoic, Betanaphtholcarboxylic, 2-Oxy-3-naphthoic, or Betacarbonaphthoic, Acid.— $\text{C}_{10}\text{H}_6 \cdot \text{OH} \cdot \text{COOH}[2:3] = 188.12$.—Fr. sodium- β -naphthol & CO_2 by heat.—Deep yellow, cryst. powd.—SOL.: A., B., C., w. yellow color; v. sltly hot W.—MELT.: 215° – 216°C .—ACTION: Antisep.—USES: Techn., in organ. syntheses.

ACID OXYNAPHTHYLORTHO-OXYTOLUYLIC—see Epicaric

ACID OXYPARATOLUIC, META—see Acid *m*-Cresotic

ACID OXYPHENIC—see Pyrocatechin

ACID OXYPHENYLQUINOLINEDICARBOXYLIC—see Hexophan

ACID *o*-OXYPHENYLSULPHONIC—see Aseptol

ACID OXYPYRONDICARBOXYLIC—see Acid Meconic

ACID OXYSUCCINIC, LEVO—see Acid Malic

ACID OXYTOLUIC, ORTHO—see Acid *o*-Cresotic

ACID OXYTRICARBALLYLIC—see Acid Citric

Acid Palmitic Merck—Pure

Palmitinic, Hexadecylic, or Cetylic, Acid.— $\text{C}_{15}\text{H}_{31} \cdot \text{COOH} = 256.34$.—Fr. spermaceti by saponify'g.—Wh. cryst. powd.—SOL.: Eas. hot A., E.; sltly cold A.; insol. W.—MELT.: abt 62°C .—USES: Manuf. soap; thickening lubricating oils; waterproofing fabrics & textiles.

ACID PALMITIC CETYLESTER—see Cetin
 ACID PALMITIC GLYCERINESTER—see Tripalmitin
 ACID PALMITINIC—see Acid Palmitic

Acid Parabanic Merck

Oxalylurea; Ethanedioxylureid.— CO.NH.CO.
 $\text{NH.CO.}=114.05$.—Fr. uric acid by HNO_3 .—
 Colorl. cryst.—SOL.: W., A.—MELT.: 242°C. w.
 decomp.

ACID PARACRESOTIC—see Acid *p*-Cresotic

"ACID PARACRESYLIC"—see *p*-Cresol

ACID PARADIAZOBENZENESULPHONIC—see Acid
p-Diazobenzenesulphonic

ACID PARADIMETHYLAMINOAZOBENZENE-ORTHO-
 CARBOXYLIC—see Methyl Red

ACID PARAHOMOSALICYLIC—see Acid *p*-Cresotic

ACID PARAISOPROPYLBENZOIC—see Acid Cuminic

ACID PARAKRESOTIC—see Acid *p*-Cresotic

ACID PARALACTIC—see Acid Sarcolactic

ACID PARAMALEIC—see Acid Fumaric

ACID PARAMANDELIC—see Acid Amygdalic

ACID PARAMETHOXYBENZOIC—see Acid Anisic

ACID PARAMINOBENZENESULPHONIC—see Acid
 Sulphanilic

ACID PARAMINOBENZOIC—see Acid *p*-Aminoben-
 zoic

ACID PARAMINOBENZOIC ETHYLESTER—see Ethyl
 Aminobenzoate

ACID PARAMINOPHENYLARSONIC—see Acid Ar-
 sanilic

ACID PARAMONOBROMBENZOIC—see Acid *p*-mono-
 Brombenzoic

ACID PARANILINESULPHONIC—see Acid Sul-
 phanilic

ACID PARANITROBENZOIC—see Acid *p*-Nitroben-
 zoic

ACID PARAOXYBENZOIC—see Acid *p*-Oxybenzoic

ACID PARAOXYMETATOLUIC, ASYMMETRIC—see
 Acid *p*-Cresotic

ACID β -PARAOXYPHENYL- α -AMINOPROPIONIC—see
 Tyrosine

ACID PARAPHTHALIC—see Acid Terephthalic

ACID PARAROSOLIC—see Acid Rosolic

ACID PARASULPHONEDICHLORAMIDOBENZOIC—see
 Halazone

ACID PARATARTARIC—see Acid Racemic

ACID PARATOLUYLIC—see Acid *p*-Toluic

ACID PARIETINIC—see Rhein

ACID PARILLINIC—see Smilacin

Acid Pelargonic Merck

Normal Ennoic, Nonylic, or Nonoic, Acid.—
 $\text{CH}_3(\text{CH}_2)_7.\text{COOH}=158.19$.—Fr. oil rue by
 oxid'n, or by fus. undecylenic acid w. KOH.—
 Colorl., oily liq. at ord. temp.; cryst. when
 cooled; charact. odor.—SOL.: Eas. A., C., E.;
 insol. W.—BOIL.: Abt 253° — 254°C. —MELT.:
 Abt 12°C. —SP. GR.: 0.910 at 15°C.

ACID PENTADIAZODIENDICARBOXYLIC—see Acid
 α - β -Imidazoldicarboxylic

ACID PENTANCARBOXYLIC—see Acid Diethyl-
 acetic

ACID PENTANDIMETHYLIC—see Acid Diethyl-
 malonic

ACID PENTOXYCAPROIC—see Acid Gluconic

ACID PENTYLFORMIC—see Acid Caproic

Acid Perchloric Merck—C.P., abt 60%

$\text{HClO}_4 = 100.47$.—Clear, colorl, liq.—MISC.:
 W. in all proport.—SP. GR.: Abt 1.54.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Hydrochloric Acid (HCl).....	0.002%
Nitrogen Comp'ds (N).....	0.010%
Sulphuric Acid (H_2SO_4).....	0.005%
Heavy Metals.....	0.000%

USES: As of the 20% acid, below.

do. Merck—C.P., abt 20%

SP. GR.: 1.12–1.15 = 16°Bé. at 15°C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Hydrochloric Acid (HCl).....	0.001%
Nitrogen Comp'ds (N).....	0.004%
Sulphuric Acid (H_2SO_4).....	0.005%
Heavy Metals.....	0.000%

USES: Powerful oxidizer; manuf. explosives &
 matches; in electrolytic deposition of lead.—
 CAUT.: Poison! Caustic (not used medici-
 nally). Deflagrates w. readily oxidizable substcs.

do. Merck—Sp. Gr. 1.12–1.15—Abt 20%

PROPERTIES, &c: As of the preced'g.

Acid Periodic

$\text{HIO}_4.2\text{H}_2\text{O}$, or $\text{H}_5\text{IO}_6 = 227.96$.—Wh., hygrosc.
 cryst.—SOL.: A., eas. W.; v. stly E.—MELT.:
 128° – 130°C. —USES: Powerful oxidizer.

"ACID PEROSMIC"—see Acid Osmic

ACID PHENACRYLIC ANHYDRIDE—see (Acid) Cin-
 namic Anhydride

ACID PHENETHYLIC—see Acid Phenylacetic

ACID PHENIC—see Phenol

Acid Phenoldisulphonic

$\text{C}_6\text{H}_3\text{OH}(\text{SO}_3\text{H})_2 = 254.20$.—Fr. phenol, by
 H_2SO_4 w. SO_2 .—Deliq., colorl. need.—SOL.: v.
 eas. W., A.

Acid Phenolsulphonic Merck—Abt 30%

Sulphocarbolic, or Sulphophenylic, or Sozolic,
 Acid.— $\text{OH.C}_6\text{H}_4.\text{SO}_3\text{H} = 174.14$.—Yellowish
 liq.; bec. brown on expos. to air.—Mixt. of *o*-
 & *p*-phenolsulphonic acids.—SOL.: W., A.—
 SP. GR.: 1.145–1.155 at 15°C. —USES: Test f.
 albumin (Barral; Bourceau) & NO_3 (Ince).

ACID *o*-PHENOLSULPHONIC—see Aseptol

ACID PHENOLSULPHORICINIC—see Phenol Sul-
 phorinate

ACID PHENPROPENYLIC ANHYDRIDE—see (Acid)
 Cinnamic Anhydride

Acid Phenylacetic Merck

Alphatoluic (or -ylic), or Phenethylic, Acid.— $C_6H_5.CH_2.COOH = 136.10$.—Fr. benzyl cyanide & KOH.—Wh., lustr. leaflets.—SOL.: Eas. hot W., A., E.; stly cold W.—MELT.: Abt $76^\circ C$.—BOIL.: Abt $265^\circ C$.—ACTION: Antisep.; Antituberc.—USES: *Intern.*, in typh. to reduce temp. & increase subnorm. blood press., & pulmon. phth.—*Extern.*, in 0.5% solut. as disinf. for tuberculous infective matter.—DOSE: 0.6–1.3 cc. (10–20 M) of 1:6 alcohol. solut. w. W. 3 t.p.d.; 2–6 Gm. (30–90 grn.) p.d. in typhoid.

ACID PHENYLACETIC NITRILE—see Benzyl Cyanide

ACID PHENYLACRYLIC, ALPHA—see Acid Atropic

ACID PHENYLACRYLIC, BETA—see Acid Cinnamic

ACID PHENYLBETAOXYPROPIONIC, ALPHA—see Acid Tropic

ACID PHENYLCINCHONINIC—see Cinchophen

ACID PHENYLCINCHONINIC HYDROCHLORIDE—see Chloroxyl

ACID PHENYLCINCHONINIC HYDRIDIODE—see Oxyl-Iodide

ACID PHENYLDISULPHIDE-*o,o*-DICARBONIC — see Acid Dithiosalicylic

ACID PHENYLETHYLBARBITURIC—see Luminal; Phenobarbital

ACID PHENYLFORMIC—see Acid Benzoic

Acid Phenylglycine-*o*-carboxylic

$COOH.C_6H_4.NH.CH_2.COOH = 195.13$. — Fr. anthranilic & chloracetic acids by boil. w. Na_2CO_3 .—Yellow, sandy, cryst. powd.—SOL.: A., E., glac. acetic acid, hot W.; alm. insol. B., C.—MELT.: Abt $215^\circ C$.

ACID PHENYLGLYCOLIC—see Acid Amygdalic

ACID PHENYLHYDRACRYLIC—see Acid Tropic

ACID PHENYLHYDRAZINELEVULINIC—see Antithermin

ACID PHENYLHYDROXYACETIC—see Acid Amygdalic

ACID PHENYLIC—see Phenol

ACID PHENYLORTHO-OXYBENZOIC—see Acid Phenylsalicylic

Acid Phenylpropionic

$C_6H_5.C_3H_7.COOH = 146.09$.—Fr. ethyl phenyldibromopropionate by alcohol. KOH & heat.—Colorl. needl.—SOL.: Eas. A., E., & in solut. Na_2CO_3 ; insol. cold W.—MELT.: 136° – $137^\circ C$.—Used in form of sodium phenylpropionate (*q.v.*).—CAUT.: Keep dark.

ACID PHENYLPROPIONIC, BETA—see Acid Hydrocinnamic

ACID 2-PHENYLQUINOLINE-4-CARBOXYLIC — see Cinchophen

ACID PHENYLQUINOLINECARBOXYLICACID-*o*-ANILIDOCARBOXYLIC—see Artosin

Acid Phenylsalicylic

Phenylortho-oxybenzoic, or Ortho-oxydiphenylcarboxylic, Acid.— $C_6H_3(OH)[1](COOH)[2](C_6H_5)[6] = 214.15$.—Fr. dibromethylcinnamate by boil. w. alcohol. KOH.—Wh. powd.—SOL.: A., E., G.; insol. cold W.—MELT.: $159^\circ C$.—ACTION: Antisep.—USES: *Extern.*, wounds, inst. of iodoform.

ACID PHLORETIC—see Phloretin

Acid Phosphoantimonic—Solution

Mixt. $SbCl_5$ w. conc. aqu. solut. Na_2HPO_4 .—SP. GR.: 1.2 = 24° Bé. at $15^\circ C$.—USES: Test f. alkaloids.

Acid Phosphomolybdic Merck—C.P.—Cryst.

Approx. $P_2O_5.20MoO_3.51H_2O = 3940.90$.—Lustrous, yellow cryst.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Chloride (Cl).....	0.020%
Nitrate (N_2O_5).....	Trace
Sulphate (SO_3).....	0.025%
Ammonium Comp'ds (NH_3)...	0.010%
Calcium (Ca).....	0.020%
Heavy Metals.....	Trace

USES: Detect K, NH_4 , V, Rb, Cs, Ta, uric acid, digitalin, xanthine, creatinine, etc.; also as test f. alkaloids (Sonnenschein).

do. —Abt 10% aqu. Solution

Clear, yellow liq.—SP. GR.: 1.06–1.07.—USES: As of precd.

Acid Phosphoric Merck—Reagent—Sp. Gr. 1.7 —85%

$H_3PO_4 = 98.06$.—Clear, syrupy liq.; colorl. or nearly so.—MISC.: Clearly w. W. or A.

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol.....	0.000%
Vol. Acids (as $HC_2H_3O_2$).....	0.001%
Chloride (Cl).....	0.000%
Metaphosphoric Acid (HPO_3)..	0.000%
Nitric Acid (HNO_3).....	0.000%
Sulphuric Acid (H_2SO_4).....	0.003%
Arsenic (As).....	0.0001%
Calcium (Ca).....	0.002%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.001%
Reduc'g Substcs (as P_2O_3)...	0.010%

USES: Separat'g volat. acids (*e.g.* $C_2H_4O_2$) fr. their salts by distil'n; determ'g H_3BO_3 ; reagent f. alkaloids (Arnold; Scheibler; Schultze), oils (Caillelet; Jean), bile acids (Drechsel), digitalin (Flückiger), albumin (Goodman), aconitine (Hassalt; Herbst; Nowak), caramel (Marsh), cod-liver oil (Milrath).

Acid Phosphoric—98%–100%—Cryst.

Orthophosphoric Acid. — (H_3PO_4) $_2$ + $H_2O = 214.14$.—Transp., hexag., pointed, prisms; eas. deliq. in air; v. acid taste.—SOL.: v. eas. W.—USES: Chem., pharm.—CAUT.: Stopper well.

do. Merck—Sp. Gr. 1.750—Abt 89%

$H_3PO_4 = 98.06$.—Clear, colorl., odorl., liq.—SP.

Gr.: Abt 1.750 at 25° C.—USES: *Techn.*, in dyeing, manuf. enamels, & dental & porcelain cements; clarifying sugar juices in sugar refin'g; as reserve in alizarine dyeing.

do. Merck—C.P., 85%

Clear, syrupy liq., colorl. or almost so.—Misc.: W., A.—Sp. Gr.: 1.710.

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol	0.000%
Chloride (Cl)	0.001%
Nitric Acid (HNO ₃)	0.000%
Sulphuric Acid (H ₂ SO ₄)	0.020%
Arsenic (As)	0.000%
Calcium (Ca)	0.010%
Iron (Fe)	0.005%
Other Heavy Metals	0.001%
Reduc'g Substcs (as P ₂ O ₃)	0.010%

USES: As of the Reagent, 85%.

do. Merck—Syrupy—85%, U.S.P. X

Sp. Gr.: Abt 1.71 at 25° C.—Misc.: All prop., W., A.—At 200° C. grad. changes to pyrophosph. acid, & at still higher temp. (abt 300° C.) to metaphosph. acid.—ACTION: Astring.; Stim.; Antipyr.; Refrig.; Diuretic in phosphatic diathesis.—USES: *Intern.* (only as dil. acid), in acute febrile diseases & diabetes as cooling & thirst quenching drink; in dyspep., scrof., phth., night sweats, disturbances in tooth nutrition; caries, rachitis, etc.—*Techn.*, in chem. & pharm.; also improv. color of sugar.—DOSE: 0.06–0.3 cc. (1–5 M) well diluted w. W.—ANTID.: Alkalies & alkaline earths & their carbonates & bicarbonates.—INCOMP.: Lead acetate, FeCl₃, AgNO₃, soluble iron phosphate or pyrophosphate, calcium salts.

do. Merck—Concentrated—Sp. Gr. 1.5

do. Merck—50%—Sp. Gr. 1.347

do. Merck—Diluted, 10%, U.S.P. X

11.6 Gm. H₃PO₄ (U.S.P.) & 88.4 Gm. dist. W. U.S.P.; 159.5 Gm. 66.3% acid w. dist. W. to make 1 liter (B.P.).—Sp. Gr.: 1.057 at 25° C.—ACTION: Tonic; Refrig.—USES: Dyspep., scrof., caries, catarrhal affect., dis. of bones; phth., night sweats, etc.—DOSE: 1.3–2.6 cc. (20–40 M); aver. dose, 2 cc. (30 M).

(Acid) Phosphoric Anhydride Merck—Reagent

Phosphorus Pentoxide.—P₂O₅ = 142.08.—White, very deliquescent, amorph., bulky powd.—SOL.: W. w. generat'n of heat & form'n of HPO₃.—Compl. sublim. by heat.

MAXIMUM OF IMPURITIES

Arsenic (As)	0.002%
Phosphorus Trioxide (P ₂ O ₃)	0.01%
Sulphate (SO ₃)	0.0 %

USES: Dehydrating agent, especially f. organic bodies; drying gases; in N. determ'n by Kjeldahl method.

(Acid) Phosphoric Anhydride Merck—C.P.

Phosphorus Pentoxide; so-called "Anhydrous Phosphoric Acid"; Phosphoric Oxide.—P₂O₅ = 142.08.—Bulky, light, amorph., odorl., wh., v.

hygros. flocks.—SOL.: W. w. hissing & evol. of wh. vapor, & dissolv. to form metaphosph. acid w. evol. of heat.

MAXIMUM OF IMPURITIES

Arsenic (As)	0.005%
Phosphorus Trioxide (P ₂ O ₃)	0.02%

USES: Chem.; drying & dehydrating agent.

"ACID PHOSPHORIC ANHYDROUS"—see (Acid) Phosphoric Anhydride

ACID PHOSPHORIC GLACIAL, or META—see Acid Metaphosphoric

Acid Phosphorous—Cryst.

H₃PO₃ = 82.06.—Wh., v. hygros., cryst. mass; readily absorbs O & forms H₃PO₄.—SOL.: A., v. eas. W.—MELT.: Abt 70° C.—USES: Reducer; determ. Hg as HgCl₂.—CAUT.: Stopper tightly.

do. Merck—Sp. Gr. 1.12

Clear, colorl. liq.

Acid Phosphotungstic Merck—C.P.—Cryst.

Phosphotungstic Acid.—Approx. P₂O₅.24.WO₃.xH₂O.—Sltly yellowish green cryst.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.010%
Nitrate (N ₂ O ₅)	0.005%
Sulphate (SO ₃)	0.020%
Ammonium Comp'ds (NH ₃)	0.005%

USES: Detect'g NH₃, K; reag. f. albumoses (Aldor; Salkowsky), caffeine (Armani), spermatc fluid (Bokarius), choline (Brieger), phenols (Folin), creatinine & peptone (Hofmeister), uric acid (Huppert; Rosenberg; Schöndorff), alkaloids (Lecha-Marzo), aminoacids (Levene), carbohydrates (Otori), urea (Pflüger-Bleibtreu), blood (Sonnenschein), albumin (Thiele; Tschugiyu; Wolff), & K (Wörner).

ACID PHOSPHOWOLFRAMIC—see Acid Phosphotungstic

Acid Phthalic Merck—Cryst.

Orthophthalic, or Benzenedicarboxylic, Acid.—C₆H₄(COOH)₂[1:2] = 166.09.—Fr. naphthalene tetrachloride by oxid'n w. HNO₃ or CrO₃.—Colorl. cryst.—SOL.: Eas. (abt 12) A., abt 6 hot W.; sltly cold W., E.; insol. C.—MELT.: Abt 195° C.—USES: Manuf. phenolphthalein, intermediates, dyes, etc., & in organ. analysis.

(Acid) Phthalic Anhydride Merck—C.P.—Sublimed

So-called "Anhydrous Phthalic Acid".—C₆H₄(CO)₂O = 148.07.—Fr. phthalic acid by heat.—Wh. lustrous, transluc. need.; opaque on long exposure.—SOL.: Sltly cold, more eas. hot, W., A., E.—MELT.: 128°–130° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.030%
Chloride (Cl)	0.006%
Sulphur Comp'ds (as S)	0.003%
Heavy Metals	0.000%

USES: *Techn.*, manuf. phthalein, pyronine, & rhodamine, dyes, intermediates, synthetic indigo; in organ. analysis.

Acid iso-Phthalic

Metaphthalic Acid. — $C_6H_4(COOH)_2[1:3] = 166.09$. — Fr. *m*-xylene by oxid'n. — Wh. cryst. powd. — SOL.: A.; alm. insol. W. — MELT.: Abt 348° C. when caut. heated in a test-tube, & subl. undecomp. without form. anhydride.

"ACID PHTHALIC ANHYDROUS" — see (Acid) Phthalic Anhydride

ACID PHTHALIC, META—see Acid iso-Phthalic

ACID PHTHALIC, ORTHO—see Acid Phthalic

ACID PHTHALIC, PARA—see Acid Terephthalic

Acid Picolinic

Alpha-, or Ortho-pyridinecarboxylic, Acid. — $C_5H_4N[1].COOH[2] = 123.08$. — Fr. α -picoline by oxid'n. — Wh. to sltly reddish cryst. powd. — SOL.: Eas. W., A.; alm. insol. A., B., C. — MELT.: 137° C.

Acid Picramic

Picraminic Acid; 4,6-Dinitro-2-aminophenol. — $C_6H_2.OH.NH_2.NO_2.NO_2[1:2:4:6] = 199.09$. — Fr. picric acid & $(NH_4)_2 S$. — Reddish-brown cryst. — SOL.: A.; eas. B., glac. acetic acid, aniline; sltly W. — MELT.: 168°–169° C. — USES: Indicator (rarely); yellow w. acids, red w. alkalies. — *Techn.*, manu. azo dyes.

ACID PICRAMINIC—see Acid Picramic

ACID PICRIC, or PICRINIC—see Trinitrophenol

Acid Picrotonic

1-Paranitrophenyl-3-methyl-4-isonitro-5-pyrazolon. — $NO_2.C_6H_4.N.CO.C(N:C.CH_3):N.O.(OH) = 264.15$. — Fr. phenylmethylpyrazolon by nitration. — Yellow powd. — SOL.: A.; insol. W. — MELT.: Abt 125° C. w. decomp. — USES: Test f. alkaloids (Matthes-Rammstedt; Knorr), tryptophan & phenylalanin (Mayeda).

ACID PICRONITRIC—see Trinitrophenol

Acid Piperic

$CH_2:O_2:C_6H_3.CH_2.CH:C.CH.COOH = 218.14$. — Fr. piperine by boil. w. alcoh. KOH. — Yellowish cryst. powd. — SOL.: Hot A., E.; alm. insol. W., & cold A. — MELT.: 216°–217° C.

ACID PIPERIDINE TARTRATE—see Piperidine Bitartrate

Acid Piperonylic

Methene- (or methylene-) protocatechuic Acid. — $CH_2:(O)_2[3:4]:C_6H_3.COOH[1] = 166.09$. — Fr. piperonal by boil'g w. alcoh. KOH. — Wh. to sltly yellowish cryst. powd. — SOL.: Eas. hot A., alkalies; sltly hot W., cold A., & E.; alm. insol. cold W. — MELT.: 228° C.

Acid Pipitzahoic

Perezon; Perezol. — $C_{15}H_{20}O_3 = 248.24$. — Fr. roots of *Perezia adnata* (Pipitzahoac). — Golden-yellow, shining scales. — SOL.: Eas. A., B., C., E., CS₂; diffc. petrol. E. & glac. acetic acid; alm. insol. W. — MELT.: 103°–104° C. — Subl. undecomp. — ACTION: Mild Cathartic. — USES: Chiefly as indic. in volumetric anal. (acids=light-yellow; alkalies=red). — DOSE: 0.2–0.3 Gm. (3–5 grn.).

ACID, PIRIA'S—see Acid α -Naphthylamine-sulphonic

ACID PLUMBIC, ANHYDROUS—see Lead Oxide, Brown

ACID POLYCHROMIC—see Acid Aloetic

ACID POTASSIUM CARBONATE—see Potassium Bicarbonate

ACID POTASSIUM CHROMATE—see Potassium Dichromate

ACID POTASSIUM FLUORIDE—see Potassium Fluoride

ACID POTASSIUM OXALATE—see Potassium Binoxalate

ACID POTASSIUM PHOSPHATE—see Potassium Phosphate Monobasic

ACID POTASSIUM PHTHALATE—see Potassium Biphthalate

"ACID POTASSIUM PYROANTIMONATE"—see Potassium Antimonate

ACID POTASSIUM SULPHATE—see Potassium Bisulphate

ACID POTASSIUM SULPHATE, ANHYDROUS—see Potassium Pyrosulphate

ACID POTASSIUM SULPHITE—see Potassium Bisulphite

ACID POTASSIUM TARTRATE—see Potassium Bitartrate

ACID PROPANETRICARBOXYLIC—see Acid Tricarballic

Acid Propionic

Methylacetic, Metacetic, or Ethylcarboxylic, Acid. — $CH_3.CH_2.COOH = 74.06$. — Fr. propyl A. by oxid'n w. CrO_3 . — Colorl. liq.; pungent odor. — MISC.: W., A., C., & E., in all prop. — SP. GR.: 0.996–0.999 at 15° C. — BOIL.: Abt 140° C. — MELT.: Abt –23° C. — USES: Organ. synthesis; the nickel salt is used in nickel galvanoplasting.

(Acid) Propionic Anhydride

$(C_2H_5.CO)_2O = 130.11$. — Colorl. liq.; pungent odor. — SOL.: A., C., E., alkalies; insol. W. — SP. GR.: 1.010–1.014 at 15° C. — BOIL.: 167° C.; 73° C. at 20 Mm. — USES: Test f. cholesterin.

ACID PROPYLACETIC, NORMAL—see Acid Valeric

ACID PROPYLFORMIC—see Acid Butyric

Acid Propylmalonic—Normal

$CH_3.CH_2.CH_2.CH.(COOH)_2 = 146.11$. — Wh., light cryst. powd., consist. of minute needles. — SOL.: W., A., C., E.; sltly benz. — MELT.: 96° C.

Acid Protocatechuic

o-Dioxybenzoic Acid. — $C_6H_3COOH.OH.OH.[1:3:4] = 154.08$. — Fr. East-Indian kino by fus'g w. NaOH. — Brownish cryst. powd. — SOL.: E.; eas. hot W. & in A. — MELT.: 190° C. w. evol. of gas. — ACTION: Astringent. — USES: Chiefly f. test'g f. Fe (Lutz), & alkaloids (Grutterink).

ACID PRUSSIC—see Acid Hydrocyanic

ACID PURREIC—see Acid Euxanthic

ACID PYRIDINECARBOXYLIC, ALPHA—see Acid Picolinic

ACID PYRIDINECARBOXYLIC, BETA, or META—see Acid Nicotinic

ACID PYRIDINECARBOXYLIC, ORTHO—see Acid Picolinic

ACID PYRIDINEDICARBOXYLIC—see Acid Quinolinic

ACID PYROBORIC—see Acid Tetraboric

ACID PYROCATECHUIC—see Pyrocatechin

ACID PYROGALLIC—see Pyrogallol

ACID PYROGALLIC, OXIDIZED—see Pyrogallol, Oxidized

Acid Pyroligneous Merck—Purified

Wood, or Pyroligneous, Vinegar.—Acetic acid & homologues obt. fr. wood by destruct. distil.—Yellowish, acid liq.; strong odor of furfural; abt 6% acetic acid.—MISC.: W., A.—USES: *Intern.*, noma, arthritis deformans.—*Extern.*, disinf. in mouth-washes & gargles in 5%–50% solut.; 10% solut. on moist bandages; 1%–5% solut. as inject. in gonorrh. & as vaginal wash; 3% solut. as paint in laryngeal catarrh.—DOSE: 0.5–1 cc. (8–15 M) w. much water in noma; 0.6–2 cc. (10–30 M) p.d. in arthritis deformans.—VETER. MED.: In contagious foot and mouth dis., mallenders, mange, & for disinf. stables in epidemic diseases.—DOSES: *Horses & cattle*, 50–100 cc. (12–25 fl. dr.); *dogs*, 0.5–1 cc. (8–15 M).

do. —Technical

Brown liq.—Abt 5% acetic acid.—USES: *Techn.*, smoking meats; also in microscopy, for imbedding.

Acid Pyromucic

Furanecarboxylic Acid. — $C_4H_3O.COOH = 112.06$.—Fr. furfural & KOH by oxid'n w. $KMnO_4$, or by heat. mucic acid at 180° C.—Wh. to yellowish cryst.—SOL.: W.; eas. A., E.—MELT.: 133° C.—SUBL.: 100° C.

Acid Pyrophosphoric

$H_4P_2O_7 = 178.11$.—Colorl., v. hygros., syrupy liq.—SOL.: W.

Acid Pyroracemic

Pyrouvic, Propanon, or Acetylcarboxylic, Acid. — $CH_3.CO.COOH = 88.05$.—Fr. tartaric or uvic acid by distil.—Yellowish liq.; pecul. odor resembl. that of acetic acid.—SOL.: W., A., E.—SP. GR.: 1.270–1.276 at 15° C.—BOIL.: 70° C. at 20 mm.—USES: Test f. α - & β -naphthols (Piñerua).

Acid Pyrosulphuric

Disulphuric Acid. — $H_2S_2O_7 = 178.14$.—Colorl. to sltly yellowish, v. hygros. cryst.; fumes strongly in air.—SOL.: v. eas. W. w. violent hissing, & form'n of H_2SO_4 .—MELT.: 35° C.—SP. GR.: 1.89.—USES: Sulphonating organic comp'ds; intermediates & dyes; refining mineral oils & mineral waxes; manuf. chlorsulphonic acid, saccharin, etc.

Acid Pyrotartaric

Methylbutanediacid; Methylsuccinic Acid. — $CH_3.CH(CH_2.COOH).COOH = 132.09$.—Fr. tartaric acid by distil'n.—Wh. to yellowish cryst.; somewh. empyreum. odor.—SOL.: Eas. W., A., E.—MELT.: 115° C.—USES: Organ. synthesis.

ACID PYROTARTARIC, NORMAL—see Acid Glutaric

ACID PYROUVIC—see Acid Pyroracemic

ACID QUERCETINIC—see Quercetin

Acid Quercitannic

Quercitannin. — $C_{17}H_{16}O_9 = 364.21$ (?).—Fr. oak bark, mainly fr. *Quercus Robur*, L.—Reddish wh. powd.—SOL.: W.; eas. dil. A.; insol. B.

ACID QUERCITRINIC—see Quercitrin

Acid Quillaic

Fr. inner bark of *Quillaja Saponaria*, Molina (Soap bark).—Reddish-wh. amorph. powd.—SOL.: A., W.—ACTION: Expector.—USES: Violent protoplasmic poison; suggested for pulmonary dis. Test f. albumin in urine (Paschourow).

Acid Quinic

Chinic, or Kinic, Acid. — $C_6H_7(OH)_4COOH = 192.13$.—Fr. cinchona bark.—Wh., levogyrate, cryst. pieces; strong acid taste.—SOL.: Eas. W.; A., acetic acid.—MELT.: Abt 162° C.—USES: Uric-acid diathesis, gout, etc., us'y in form of salts, e.g., lithium quinate, piperazine quinate, methenamine quinate, urea quinate, etc.; also as test f. resorcinol (Guyot).—DOSE: 0.25–0.5 Gm. (4–8 grn.) sev'l t.p.d.

ACID QUINIDINE SULPHATE—see Quinidine Bisulphate

ACID QUININE HYDROBROMIDE—see Quinine Dihydrobromide

ACID QUININE HYDROCHLORIDE—see Quinine Dihydrochloride

ACID QUININE IODIDE—see Quinine Dihydriodide

ACID QUININE SULPHATE—see Quinine Bisulphate

Acid Quinolic

Chinolic Acid; Nitrodioxyquinoline. — $C_9H_4N.NO_2(OH)_2 = 206.11$.—Fr. cinchonine by oxid'n w. HNO_3 .—Yellowish cryst.—SOL.: Dil. acids; v. diff. A.; alm. insol. W.

Acid Quinolinic

Chinolinic, or 2,3-Pyridinedicarboxylic, Acid. — $C_5H_3N(COOH)_2 = 167.08$.—Fr. quinoline by oxid'n w. $KMnO_4$.—Yellowish cryst.—SOL.: Hot W. & alkalies; sltly cold W., A., E.—MELT.: After sintering, at 190°–195° C., & then decomp. into CO_2 & nicotinic acid melt'g at 230°–232° C.

Acid Quinovic

Chinovic Acid. — $C_{24}H_{38}O_4 = 390.42$ (Hlasiwetz & Gilm).—Deriv. of quinovin (chinovin).—Yellowish, tastel., dextrorotatory, cryst. powd.—SOL.: E., C., NH_4OH ; sltly A.; insol. W.

Acid Racemic

Uvic, Paratartaric, or Inactive Tartaric, Acid.
 $\text{—C}_2\text{H}_4\text{O}_2(\text{COOH})_2 + \text{H}_2\text{O} = 168.08$.—By-prod. of tartaric acid manuf.—Colorl., tricin. cryst.
 —SOL.: A.; v. eas. W.—MELT.: Abt 206°C ., when anhydrous.—USES: Test f. Ca salts (Kling).

ACID *DEXTO*-RACEMIC—see Acid Tartaric

Acid Resorcinoldisulphonic

$\text{C}_6\text{H}_2(\text{OH})_2(\text{SO}_3\text{H})_2 + 2\text{H}_2\text{O} = 306.23$.—Fr. resorcinol by H_2SO_4 .—Deliq., brownish, gran. mass.—SOL.: Eas. W., A.; insol. E.—Decomp. abt 100°C . without melt.

ACID RHEIC—see Rhein

Acid Ricinoleic

$\text{C}_{18}\text{H}_{33}\text{CH}(\text{OH})\text{CH}_2\text{CH}(\text{CH}_2)_7\text{COOH} = 298.36$.—Fatty acid fr. castor oil.—Yellowish, viscid mass.—SOL.: A., C., E.—BOIL.: 250°C . at 15 mm.—MELT.: 4° – 5°C .—SP. GR.: 0.940–0.945 at 15°C .—USES: With sulphur to manuf. rubber-like masses.

ACID RICINSTEAROLIC DIHODIDE—see Periodyl

ACID ROSEINE—see Ruby S

Acid Rosolic Merck—Reagent

Corallin; Aurin; Pararosolic Acid; Diphenol-cresolcarbinol Anhydride. — $\text{OH}\cdot\text{C}_6\text{H}_4(\text{CH}_3)\cdot\text{C}(\text{C}_6\text{H}_4\text{OH})\cdot\text{C}_6\text{H}_4\cdot\text{O} = 305.24$.—Fr. rosaniline, conc. HCl, & NaNO_2 .—Brownish-red lumps w. metal. luster & conch. fract.; eas. reduced to red powd.—SOL.: v. sltly W.; eas. & clearly in A.; v. eas. hot A.; sltly C., E.; fairly in glaci. acet. acid; insol. B., CS_2 ; the soluts are yellowish-red.—TEST FOR SUITABILITY: 2–3 drops indic. solut. + 100 cc. W. + 0.05 cc. 0.1*N* NaOH—red color developed, changed to yellow on add'g 0.05 cc. 0.1*N* HCl.—USES: In gastric analysis; reagent f. CO_2 in potable W. (Pettenkofer); as indicator in solut. (1 Gm. + 100 cc. 50% A.) for caustic alkalies & mineral acids, including SO_2 , but except'g H_3PO_4 . PH = yellow 6.9–8.0 red.—The technical grade is used f. coloring spirit varnishes & lacquers, in dyeing, & in photog.

ACID ROSOLIC, PARA—see Acid Rosolic

ACID RUBIN, AZO 2 B—see Amaranth

ACID RUBINE—see Ruby S

ACID RUBINIC—see Acid Catechutannic

Acid Rufigallic

Rufigallol; 1.2.3.5.6.7.Hexaoxyanthraquinone.
 $\text{—}(\text{OH})_3\text{C}_6\text{H}(\text{CO})_2\text{C}_6\text{H}(\text{OH})_3 + 2\text{H}_2\text{O} = 340.17$.
 Fr. gallic or tannic acid by heat. w. conc. H_2SO_4 .—Reddish-brown cryst. powd.—SOL.: Alkalies; alm. insol. A. & E.; insol. W.

ACID SACCHAROLACTIC—see Acid Mucic

Acid Salicylic Merck—C.P.—Cryst.

Orthoxy(hydroxy)benzoic Acid.— $\text{C}_6\text{H}_4(\text{OH})\text{COOH}[1:2] = 138.08$.—Fine, wh., odorl.,

acicular crystals, or cryst. powd.—SOL.: Abt 500 W., abt 2 A. or E., 30 C.—MELT.: Abt 157°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.050%
Chloride (Cl)	0.002%
Sulphate (SO_3)	0.004%
Iron (Fe)	0.000%

USES: Reagent f. acetone (Denigès), HNO_3 (Desfourniaux); titanium (Jorissen), lactic acid (Kühl), formaldehyde (Puckner), methyl alcohol (Sailer), & nitrates (Tingle); also f. fusel oil & citric acid; in N determ'ns by Kjeldahl or Gunning method to include nitrate-N.

do. Merck—U.S.P. X—Cryst., Powd., or Fine Powd.

Fr. phenol by NaOH & CO_2 .—Colorl., odorl. cryst., or light, fine, wh., cryst. powd.; taste first sweetish then acid.—SOL.: 460 W., 2.7 A., 135 B., 42 C., 3 E., 3 acetone, 52 oil turpent., at 25°C ., & 15 boil'g W., U.S.P.—MELT.: 157° – 159°C .—ACTION: Antisep.; Antipruritic; Antirheum.; Antipyr.; Anti-hydr.—USES: *Intern.*, as specific in acute rheum; migraine, neural, influenza, pericard., scarlet fev., pleurisy, febrile infect. dis., purulent cystitis, abnorm. gastric fermentative processes, &c.—*Extern.*, wounds, skin dis., & inflamed surfaces; remov. corns, warts, tattoo marks, etc.—*Techn.*, efficient preservative of food products but its use f. this purpose is forbidden in some countries; manuf. salicylates, dyes (espec. azo), intermediates, esters f. perfumery, catgut, parchiment; preserv'g glues, gelatin, hides, pastes, mucilage, etc.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d., in wafers, or powd.; aver. dose, 0.75 Gm. (12 grn.).—MAX. D.: 4 Gm. (60 grn.) p.d.—APPL.: In 2%–5% hydro-alcoh. solut.; 1:10 collod. solut. for corns; for wounds, & in mouth- & tooth washes; in 5% admixture w. talcum in excessive perspiration.—VETER. MED.: In artic. rheumat., glanders, and dysentery in nurslings; *horses & cattle*, 50–70 Gm. (12–17½ dr.) single, & 100–140 Gm. (25–35 dr.) p.d.; *calves, sheep, goats, & pigs*, 1–5 Gm. (15–75 grn.); *dogs*, 0.25–2 Gm. (4–30 grn.), 2–8 t.p.d.—INCOMPAT.: Alkalies & alkali earths; iron salts; spt. nitrous ether; exalgine; lead acetate; KI; KMnO_4 ; Na_2HPO_4 ; quinine salts; urethane.

do. Merck—From Natural Oil, U.S.P. X**do. Merck—Techn., Sublimed**

ACID SALICYLIC METACRESYLICESTER—see *m*-Cresalol

ACID SALICYLIC ORTHOCRESYLICESTER—see *o*-Cresalol

ACID SALICYLIC PARACRESYLICESTER—see *p*-Cresalol

ACID SALICYLOUS—see Aldehyde Salicylic

ACID SALICYLSALICYLIC—see Salysal

ACID SALICYLSULPHONIC } see Acid Sulphosalicylic
 ACID SALICYLSULPHURIC }

Acid Santalic

Santalinic Acid.— $C_{15}H_{14}O_5 = 274.19$.—Fr. red sandal wood.—Brownish-red powd.—SOL.: E.; eas. in A. & alkalies w. violet color; insol. W.—MELT.: $104^\circ C$.—USES: As indicator (rarely).

ACID SANTALIC, CRUDE—see Santalin

ACID SANTALINIC—see Acid Santalic

Acid Santonic

Isomeric, but not identical, w. santonic acid.— $C_{15}H_{20}O_4 = 264.24$.—Fr. santonin by boil. w. Ba(OH)₂.—Wh., cryst. powd.—SOL.: Hot, alm. insol. cold, W.; eas. in A., C., E.—MELT.: $170^\circ C$.—USES: As of sod. salt (*q.v.*).

"ACID SANTONIC"—see Acid Santoninic

Acid Santoninic

Miscalled "Santonin Acid".— $C_{14}H_{19}O_2.COOH = 264.24$.—Fr. santonin by boil. w. KOH or NaOH.—Colorl. cryst.—SOL.: Eas. A., C., E.; stly cold, more eas. hot, W.—Decomp. at $120^\circ C$. into santonin & W.—ACTION: Anthelm.—USES: Intest. worms, us'ly as sod. santoninate.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

ACID SANTONINIC, ANHYDROUS—see Santonin

Acid Sarcocolactic

Paralactic, Dilactic, or Dextro-ethylidenelactic, Acid.— $CH_3.CH(OH).COOH = 90.06$.—Fr. meat.—Dextrorotatory, syrupy liq., or hygroscop. cryst.—MELT.: At $25^\circ C$, forming dextrorotatory salts.—MISC.: W., A., E.

ACID SATIVIC—see Acid Tetraoxystearic

Acid Sclerotic

Sclerotinic Acid (Dragendorff).—An extract contain'g the Ca & K salts of sclerotic acid, & obt'd fr. the sclerotium of *Claviceps purpurea*, Tulasne (*Ergot* of rye).—Yellow or brownish, v. hygrosc. powd.—SOL.: 20 W.; in conc. H_2SO_4 w. brownish-red color.—ACTION: Hemostat.; Antiepile.—DOSE: 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.) per os, or subcut. in 1:1000 aq. solut. thymol.—MAX. D.: 0.3 Gm. (5 grn.) p.d.—CAUT.: Aq. soluts keep only f. 24 hrs, hence only suff. for 1 day should be prepared. Keep well stoppered. See also Acid Ergotic.

ACID SCLEROTINIC—see Acid Sclerotic

Acid Sebacic Merck

Sebacinic, or Sebacylic, Acid; Decan-diacid.— $C_8H_{16}(COOH)_2 = 202.19$.—Fr. castor oil by heat. w. NaOH.—Wh. to yellowish cryst. powd.—SOL.: Hot W., E.; eas. A.—MELT.: $133^\circ C$.—BOIL.: $294.5^\circ C$. at 100 mm.—USES: Test f. thorium (Smith-James); also in manuf. candles, & esters used in manuf. fruit-ethers & perfumes; manuf. celluloid & o. plastics.

ACID SEBACINIC } see Acid Sebacic
ACID SEBACYLIC }

Acid Selenic—Abt 40% Aq. Solution

$H_2SeO_4 = 145.22$.—Colorl., odorl., corros., v. hygrosc. liq.—MISC.: W.—Sp. Gr.: 1.400–1.410 = $40^\circ B^e$, at $15^\circ C$.—USES: Test f. methyl alcohol (Klein).

(Acid) Selenous Anhydride—Sublimed

Selenium Dioxide.— $SeO_2 = 111.20$.—Wh., to stly reddish, lustr. needles or cryst. powd.—SOL.: A.; eas. in W., forming H_2SeO_3 .—USES: *Intern.*, cancer.—*Techn.*, w. conc. H_2SO_4 as alkaloidal test (Mecke: Schlagdenhauffen), & t. emetine (Peroni).—DOSE: 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) 3 t.p.d.

do. —Technical

DESCRIPT., SOL., &c.: As preced'g.

Acid Silicic Merck—C.P.

Precipitated Silica.— $SiO_2 + xH_2O$.—Pure wh., amorph., partly dehydrated powd.—SOL.: Hot alkal. solut.

MAXIMUM OF IMPURITIES

Nonvol. Matter with HF.....	0.40%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.02%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.010%

USES: As absorbent; the *technical* grade is used f. bleaching oils, fats, waxes.

do. Merck—Natural

Silicic Anhydride; Silica.— $SiO_2 = 60.10$.—Wh., fine powd.—Insol. W., A., E.—See also Silica, Mineral.

ACID SILICOFLUORIC—see Acid Hydrosilicofluoric

Acid Silicotungstic Merck—C.P.

Silicowolframic Acid.—Approx. $SiO_2.12WO_3 + 26H_2O = 3312.52$.—Wh. to stly yellowish, deliquesce. cryst.—SOL.: v. eas. A., E.

MAXIMUM OF IMPURITIES

Sulphate (SO_3).....	0.020%
Chloride (Cl).....	0.005%
Tungstate.....	0.000%
Heavy Metals.....	0.000%

USES: Reag. f. alkaloids (Bertrand; Jensen), & f. antipyrine (Godeffroy); also as general reag. f. alkaloids, partic. in quantitative determ'n of sparteine, atropine, nicotine, aconitine, & brucine, & determin'g antipyrine & pyramidon; prepar'g specifically heavy solut's f. separating minerals (a solut. of 20 Gm. in 4 cc. W. has a sp. gr. 2.74).—The *technical* grade is used as a mordant f. basic aniline dyes.

ACID SILICOWOLFRAMIC—see Acid Silicotungstic

ACID SODIUM CARBONATE—see Sodium Bicarbonate

ACID SODIUM PHOSPHATE—see Sodium Phosphate, Monobasic

ACID SODIUM SULPHATE—see Sodium Bisulphate

ACID SODIUM SULPHITE—see Sodium Bisulphite

ACID SODIUM TARTRATE—see Sodium Bitartrate

Acid Sorbic

Sorbinic Acid.— $CH_3CH:CH.CH:CH.COOH = 112.09$.—Fr. berries *Sorbus aucuparia* Gaertner (Mountain Ash).—Yellowish-wh. cryst.—SOL.: Stly cold, more eas. hot, W.; eas. A. & E.—MELT.: $134^\circ C$.—BOIL.: $228^\circ C$. w. decomp.

Acid Sozoiodolic

Diiodoparaphenolsulphonic Acid. — $C_6H_2I_2-$

OH.SO₃H + 3H₂O = 480.01.—Wh., alm. odorl. cryst. needl.—SOL.: Eas. W., A., E., & G.—ACTION: Antisept.—USES: In pharyngitis in 2.5% aqu. solut.; also as test f. albumin (Guérin).

ACID SOZOLIC—see Acid Phenolsulphonic; Aseptol

Acid Stearic

Stearinic, Cetylacetic, or Stearophanic, Acid.—C₁₇H₃₅COOH = 284.38.—Wh., to sltly yellowish powd.—SOL.: Abt 20 A., eas. in B., C., CCl₄, E.; insol. W.—MELT.: 60°–65° C.—USES: Test f. Fe & Cu (Kahn).

do. Merck—U.S.P. X—Lumps or Powd.

Wh. or yellowish-wh., lumps or powd.; us'ly has a slt fatty odor.—Us'ly obt fr. animal fats.—SOL.: 21 A., 2 C., 3 E. at 25° C., & freely in CS₂ & CCl₄; alm. insol. W., U.S.P.—MELT.: Not below 56° C. U.S.P.—USES: In ointm., & f. coating bitter remedies (e.g. quinine), to render them tastel.—Techn., manuf. stearin soap f. opodeldoc, glycerin suppositories, candles, driers; also in cosmetics; coating enteric gelat. capsules.

ACID STEARINIC

ACID STEAROPHANIC } see Acid Stearic

"ACID STIBIC"—see Antimony Oxide

ACID STIBIOUS, ANHYDROUS—see Antimony Oxide

Acid Suberic

Octandiacid. — C₈H₁₂(COOH)₂ = 174.15. — Fr. cork, castor oil, &c., by HNO₃.—Wh. cryst.—SOL.: A., sltly E.—MELT.: 140° C. SUBL.: Abt 300° C. without decomp.

Acid Succinic Merck—C.P.

Ethylenesuccinic, or Ethylenedicarboxylic, Acid; Butandiacid.—COOH.CH₂.CH₂.COOH = 118.07.—Fr. calcium malate & cheese by ferment.; synthet. fr. symm. dichloroethane & NaCN.—Wh., odorl., molin. prisms or leaflets; v. acid taste.—SOL.: Abt 20 cold, 2 boil., W.; abt 10 A., acetone; abt 80 E.; insol. B., C., petrol. E., & oil turp.—SUBL.: When caut. heated, begins to subl. at abt 120° C.—MELT.: Abt 183° C.; 184°–185° C. when rapidly heat.—BOIL.: 235° C. w. evol. of pungent wh. fumes, & decomp'n to large extent into W. & succinic anhydride.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.030%
Chloride (Cl).....	0.003%
Phosphate (P ₂ O ₅).....	0.000%
Sulphate (SO ₃).....	0.005%
Tartrate.....	None
Ammonium Comp'ds (NH ₃)...	0.002%
Heavy Metals.....	0.000%

USES: Separat'g Fe fr. Al, Mn, Ni, Co, & Zn; reag. f. Ca, & f. albumin (Amann); standard f. prepar'g volumetric soluts.

do. Merck—Purified, Cryst.

Colorl. to sltly yellowish cryst.—SOL.: 20 cold, abt 2.5 boil., W., abt 10 A.—MELT.: 182°–185°

C.—ACTION: Antispasm.; Expector.; Diuret.—USES: Intern., in epilep., cramps, hyster., delir. trem., typhoid, acute exanthemata, gout, & rheum.—Extern., mouthwash & gargle; also appl. w. brush.—Techn., in manuf. lacquers, dyes, perfumery esters, succinates, intermediates; & in photogr.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.; 0.1–0.5 Gm. (1½–8 grn.) in hyster., epilep., typhoid, acute exanth., gout, rheum., etc.—See also Ammonium Succinate & Solut. Ammon. Succinate.

(Acid) Succinic Anhydride

Succinic Anhydride; Succinyl Oxide; so-called "Anhydrous Succinic Acid."—CH₂CO.O.CH₂CO = 100.03.—Fr. succinic acid by prolonged heat.—Wh. acid. cryst. having at most a v. slt odor.—SOL.: A., C., & E. without decomp.; in W. w. convers. into succinic acid.—MELT.: Abt 120° C.—BOIL.: 261° C.

"ACID SUCCINIC ANHYDROUS"—see (Acid) Succinic Anhydride

ACID SUCCINYLDISALICYLIC—see Diaspirin

ACID SULPHAMINIC—see Acid Aminosulphonic

Acid Sulphanilic Merck—C.P.

Para-aminobenzenesulphonic, or Para-aniline-sulphonic, Acid.—C₆H₄.SO₃H.NH₂[1:4]+2H₂O = 209.19.—Fr. aniline by heat'g w. fum. H₂SO₄.—Colorl., effloresc. cryst.—SOL.: Abt 160 cold, more eas. hot, W.; alm. insol. A., B., E.—Carbonizes at 280°–300° C.

MAXIMUM OF IMPURITIES

Inorgan. Matter.....	0.05%
Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.010%

USES: Chem., with alphanaphthylamine for detect'g HNO₂ in various substcs, e.g., flour, drinking water, etc.; in microscopy; also as test f. adrenalin (Bayer), bile pigments (Clemens; Krokiewicz; Raphael), HNO₂ (Ducco; Erdmann; Frankland; Griess; Griess-Ilosvay; Ilosvay; Lunge; Tochirikow), guanine (Giacomo), betanaphthol (Richardson), & as typhoid diazo reagent (Ehrlich; Hefebower).—Medic., as Anti-catarrhal; Analgesic—Intern., coryza, pharyng. & laryng. catarrh, & as prophylactic in iodism.—Techn., Chem. anal.; manuf. various dyes & intermediates.—DOSE: 0.6–2 Gm. (10–30 grn.) 1 or 2 t.p.d. in aqu. solut. w. sod. bicarb.

ACID SULPHANILIC DIAZIDE—see Acid *p*-Diazobenzenesulphonic

ACID SULPHETHYLIC—see Acid Ethylsulphuric

ACID SULPHINDIGOTIC } see Acid Indigodisulphonic

ACID SULPHINDYLIC }

ACID SULPHOCARBOLIC—see Acid Phenolsulphonic; Aseptol

ACID SULPHOCHOLEIC—see Acid Taurocholic

Acid Sulphomolybdic

MoO₃.SO₃(MoO₂.SO₄) = 448.12(?). — Violet-brown, cryst. powd.—SOL.: W., partic. in hot, w. blue color.

ACID SULPHONAPHTHYLAMINIC—see Acid α -Naphthylaminesulphonic

ACID SULPHOPHENYLIC—see Acid Phenolsulphonic

Acid Sulphuricinic

Sulphuricinoleic Acid.—Fr. castor oil, by H_2SO_4 .—Oily liq.—SOL.: W., A.—SP. GR.: 1.015–1.02 at 17° C.—ACTION: Antisep.; Irrit.; Deodor.—USES: *Extern.*, ozena, ulcerat. & skin dis., diphth., tuberc., affect. of muc. membr.—*Techn.*, solv. for sulphur, phenol, iodine, &c.

ACID SULPHURICINOLEIC—see Acid Sulphuricinic

Acid Sulphosalicylic Merck—C.P.

Salicylsulphuric, or Salicylsulphonic Acid.— $\text{C}_6\text{H}_3\text{OH}.\text{COOH}.\text{SO}_3\text{H}[2:1:5] = 218.14$.—Fr. salicylic acid & conc. H_2SO_4 by heat.—Wh., cryst. powd.—SOL.: v. freely W., A.—MELT.: Abt 108° C.; melt.-pt rises w. partial dehydration.

Nonvol. Matter.....	0.10%
Salicylate.....	None
Sulphate (SO_3).....	0.030%

USES: Test f. albumin.

ACID SULPHOVINIC—see Acid Ethylsulphuric

Acid Sulphuric Merck—Reagent—Sp. Gr. 1.84—94%

$\text{H}_2\text{SO}_4 = 98.08$.—Clear, colorl., oily liq.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.0005%
Hydrochloric Acid (HCl).....	0.0001%
Nitric Acid (HNO_3).....	0.0002%
Substcs Oxidiz. by $\text{KMnO}_4(\text{SO}_2)$	0.0005%
Ammonium Comp'ds (NH_3)..	0.0003%
Arsenic (As).....	0.000003%
Iron (Fe).....	0.0001%
Lead (Pb).....	0.003%
Selenium (Se).....	0.002%
Other Heavy Metals.....	0.0000%

USES: In Marsh test f. As partic. in forensic anal.; pptng Pb, Ca, Ba; acidifying; solvent f. minerals; Kjeldahl determ. of N; destroying organic matter in chemical anal.; in gas-, oil-, & microscopical anal.

Acid Sulphuric Fuming Merck—Reagent—For N-Determ.

Oily, fum'g liq. sometimes sltly colored or cloudy; cont's 13%–15% free SO_3 .

MAXIMUM OF IMPURITIES

Nitrogen.....	0.001%
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Acid Sulphuric Merck—C.P., U.S.P. X

Oil of Vitriol; Dihydrogen Sulphate.— $\text{H}_2\text{SO}_4 = 98.08$.—Colorl., odorl., strongly corros., dense, oily liq.—MISC.: W., A., all proport. w. evol. of heat.—SP. GR.: Abt 1.84.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Hydrochloric Acid (HCl).....	0.0003%
Nitric Acid (HNO_3).....	0.001%
Substcs Oxidiz. by $\text{KMnO}_4(\text{SO}_2)$	0.001%
Ammonium Comp'ds (NH_3)..	0.001%
Arsenic (As).....	0.00002%
Lead (Pb).....	0.007%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. —U.S.P. X, 93%–95%

DESCRIPT. & C.: As preced'g.—SP. GR.: Abt 1.83 at 25°; (the B. P. acid cont's not less than 95% H_2SO_4 ; SP. GR.: Abt 1.841 = 66° Bé. at 15.5° C.).—USES: *Medic. intern.*, as dil. or arom. acid (the conc. acid is not used medicinally).—*Techn.*, manuf. o. acids, ether, glucose, alum, & o. salts; purif. organic & inorganic substcs.—VET. MED.: Dil. w. 5 W. as caustic f. neoplasms, tumors, cancers of the frog and hock.—ANTID.: *Extern.*, wipe off gently, immed. wash w. plenty water, using soap freely, then cover w. moist magnesia or baking soda; *intern.*, teaspoonful or more magnesia, chalk, whiting, or wall plaster, or small pieces of soap softened w. water, in milk, mucilage, or raw egg albumin.

do. —Diluted, 9.5%–10.5%, U.S.P. X; B.P.

107 Gm. U.S.P. acid & 893 Gm. dist. W., U.S.P.; (112.5 Gm. 95% acid & 940 cc. water, B.P.).—SP. GR.: Abt 1.067 at 25° C.; 1.069 at 15.5° C., B.P.—USES: *Intern.*, gastro-intest. disorders, hemoptysis, diarrh., senile pruritus, lead poison., phthicalic sweats, exophthalmic goiter; solvent f. quinine & o. alkaloids.—DOSE: 1–2 cc. (15–30 M) well diluted; aver. dose 1 cc. (15 M).—MAX. D.: 2.5 cc. (40 M) single; 5 cc. (80 M) p.d.—The conc. acid not used internally.—VETER. MED., *intern.*, horses, 4 cc. (60 M); cattle, 8 cc. (120 M); sheep, goats & pigs, 0.5–2 cc. (8–30 M); dogs, 0.3–1 cc. (5–15 M); cats, 0.3 cc. (5 M).

do. Merck—Technical—Sp. Gr. abt 1.835 = 66° Bé.

Clear, colorl. to brownish, oily liq.—USES: Drying agent; exciting liq. f. electric batteries; engraving; as fungicide; refining sugar, oils, waxes, & petroleum; mercerizing; cleaning metals; manuf. parchment paper, guncotton, nitroglycerin, intermediates, glucose, indigo carmine & indigo soluts, carbonated beverages, aniline dyes, artif. silk, turkey red oil, pyroxylin plastics, synthetic perfumes, reclaimed rubber, superphosphates, & c. acids.—ANTID.: As of the U.S.P. X acid.

do. —Technical, Sp. Gr. 1.400, 50% = 41.5° Bé.; Sp. Gr. 1.300, 39% = 33.5° Bé.; & Sp. Gr. 1.210, 28.5% = 25° Bé.

These "technical" acids are all of "Electrolyte" grade.

(Acid) Sulphuric Anhydride

Sulphur Trioxide; so-called "Anhydrous Sulphuric Acid."— $\text{SO}_3 = 80.06$.—Freshly sublimed, long, colorl., v. hygrosc. prisms, fuming strongly in air.—SOL.: W. w. hissing in sm. quantities, & w. large quantities w. explosive violence, forming H_2SO_4 .—MELT.: At ordin. room temp. & then boils at abt 46° C.—USES: Absorbent of water; manuf. explosives & dyes (indigo); purif. petroleum; oxidizer & sulphurizer; fortifying ordinary H_2SO_4 ; dehydrating agent; in Kjeldahl N determ'n.

"ACID SULPHURIC ANHYDROUS"—see (Acid) Sulphuric Anhydride

Acid Sulphuric Aromatic Merck—U.S.P. X

Elixir of Vitriol.—19%–21% free & combined H_2SO_4 w. alc., tr. of ginger & oil of cinnamon.—Reddish-brown liq.; pleas. arom. odor.—Sp. Gr.: Abt 0.94 at 25° C.—ACTION: Tonic; Astring.—USES: Phth. night sweats; relaxed condit. of muc. memb. of intest.—DOSE: 0.6–1.3 cc. (10–20 M); aver. dose 0.5 cc. (8 M).

do. —B.P.

7% by vol. or 13.2% by wt H_2SO_4 w. alc., tr. of ginger & spt of cinnamon.—ACTION & USES: As of preced'g.—DOSE: 0.3–1.3 cc. (5–20 M).

Acid Sulphurous Merck—C.P. 6%–7% SO_2

Solution Sulphur Dioxide.— SO_2 = 64.06.—Colorl., clear, acid liq.; suffoc. sulphurous odor.—Misc.: W.—Sp. Gr.: Abt. 1.030 at 15° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Chloride (Cl).....	0.001%
Arsenic (As).....	0.000%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, as Antisep.; Parasiticide; Disinfect.—*Intern.*, in flatulent dyspepsia, in typhoid as intestinal antiseptic, & in vomiting due to gastric ferment'n, etc.—*Extern.*, in diphth. & tonsillitis (w. 1–2 parts W. as spray or mop); sloughing wounds, cuts, & ulcers (10%–25% solut.); chapped hands & nipples; chilblains; erysipelas, ring worm & other parasitic skin diseases (50% solut. w. glyc.); by inhalat'n (1:150 W.) in bronch. catarrh, asthma, whoop-cough, etc.—DOSE: 1–4 cc. (15–60 M).—ANTID.: Mustard plaster on chest; narcotics; expectorants; artif. respiration.

do. Merck—5%–6% SO_2

Techn., preserv. meat, fruits, vegetables, etc.; as antichlor. in paper manuf.; extract'g Cu fr. certain ores; dissolving auriferous & argentiferous pig-iron; in brewing; bleaching wool, silk, straw, animal substes & wicker ware; dyeing & printing, disinfect'g &c.

Acid Tannic Merck—C.P.

Gallotannic, or Digallic Acid; Tannin.— $\text{C}_{14}\text{H}_{10}\text{O}_9$ = 322.15.—Organic acid us'ly obt'd fr. nutgall.—Yellowish-wh. to light-brown, amorph., bulky powd., or spongy masses; faint charact. odor; astring. taste; grad'y becomes darker on expos. to air & light.—SOL.: Abt 1 W., A., or warm G.; alm. insol. C. or E.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.10%
Sugar, Dextrin.....	None
Water (Excess over 12%).....	0.000%
Resinous Matter.....	None
Heavy Metals.....	0.000%

USES: Determ'g effective value of hide powd. & soluts. used in estimat'g tannin; detect'g gelatin; reag. f. albumin (Almén; Christensen; Claudius; Rees; Tognette), alkalies (Bachmeyer), chelidonine (Battandier), neurin (Brieger), iron (Dowzard), aloes (Dietrich) CO-blood (Domenicis), wine coloring matters (Faure), alcohol & potable water (Hager),

alkaloids (Kippenberger; Pelouze), HCl (Kost), CO (Kunkel), caramel (Lichthardt), true honey (Lund), & blood (Struve). The 10% solut. is employed as a test solut. in the U.S.P. X.

do. Merck—U.S.P. X—Powd. or Fluffy

DESCRIPTION & PROPERTIES: As preceding.—SOL.: v. eas. in W., & in A.; 1 acetone, abt 1 warm G., freely sol. dil. A., sltly in absol. A., & alm. insol. B., C., E., or petrol. benzin, U.S.P.; (1 A. [90%], 1 W., 1 G., at 15.5° C., B.P.).—ACTION: Local Astring.; Intern. Hemost.; Antisep.—USES: *Intern.*, hemorrhages, diarrhea, dysent., cholera, diseases of serous membranes (pleurisy, peritonitis, enteritis, &c.), diabetes, Brights dis. & night sweats of phth.; also in poison'g by alkaloids & metals.—*Extern.*, as styptic for bleeding; in 1%–10% solut., as gargle, inj., spray, mouth-wash, inhalat., enema, etc.; in weaker solut. as collyrium. An ethereal tincture contain'g 2% or 3% is brushed over burns 2 or 3 times a day.—*Techn.*, Purif. water; improv. wine; clarifying beer; manuf. ink; photogr.—DOSE: 0.2–1.3 Gm. (3–20 grn.); aver. dose, 0.5 Gm. (8 grn.).—VETER. MED.: *Horses*, 4–15 Gm. (1–4 dr.); *cattle*, 10–24 Gm. (2½–6 dr.); *calves*, *colts*, *sheep*, *goats*, & *pigs*, 1–4 Gm. (15–60 grn.); *dogs* (in diarrh.) 0.2–0.6 Gm. (3–10 grn.), & *extern.* in ulcers and eczema; *fowl*, 0.01–0.05 Gm. (¼–¾ grn.).—INCOMP.: Salts of Sb, Cu, Fe, Pb, Hg, & Ag; I; iodoform; permanganates, chlorates, & o. oxidizers; spt. nitrous ether; lime-water, alkaloids, albumin, gelatin, starch.—CAUT.: Keep dark & well stoppered.

do. Merck—Technical—Powd.

Yellowish powd.—SOL.: W., A.—USES: Mor-dant in dyeing w. aniline & alizarine dyes; dyeing black; manuf. ink; sizing paper & silk; printing fabrics; w. gelatin (or glue) & albumin for manuf. imitat. horn & tortoise-shell; tanning; fining wines; photogr.; coagulant in rubber manuf.; deodorizing crude oil; purifying water; manuf. gallic acid & pyrogallol; denatur-ing alcohol; coloring metals.

(Acid) Tantalal Anhydride

Tantalum Pentoxide; Tantalal Anhydride.— Ta_2O_5 = 433.00.—Wh., micro-cryst., infusible powd.—SOL.: HF; insol. W., mineral acids.—USES: *Techn.*, manuf. incandesc. lights.

ACID TARIRINIC DIODIDE—see Iodostarin

Acid Tartaric Merck—Reagent—Cryst.

$\text{C}_2\text{H}_2(\text{OH})_2(\text{COOH})_2$ = 150.07.—Clear, colorl. cryst.—SOL.: Less than 1 W., abt 4 A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.000%
Oxalic Acid ($\text{H}_2\text{C}_2\text{O}_4$).....	0.020%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.000%
Lead (Pb).....	0.0005%
Other Heavy Metals.....	0.000%

USES: Forensic analysis, assistant in dissolv'g minerals, separ. Fe_2O_3 fr. Al_2O_3 , estimat'g

Fe & Sb, & as reag. f. abradol & pyrogallol (Carletti), albumin (Corzo; Polacci; Spiegler), glucose (Horsley; Lowenthal; Staedeler-Krause), pyridine (Kunz-Krause), K (Salkowski), Be (Schneider), Co (Skey), & oxyhemoglobin-blood (Stooke).

Acid Tartaric Merck—C.P.—Cryst. or Powd.

Dioxysuccinic, Dextroracemic, or Ordinary Dextrorotartaric, Acid.— $C_4H_2(OH)_2(COOH)_2 = 150.07$.—Fr. argols, or wine lees.—Colorl., transp. monoclinic cryst. permanent in air, or wh. powd.; strongly acid taste.—SOL.: Abt 1 W., 4 A., at 15° C.; stly (1:250) E.; insol. B., C.—MELT.: Abt 168° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.000%
Oxalic Acid ($H_2C_2O_4$).....	0.050%
Sulphate (SO_3).....	0.025%
Iron (Fe).....	0.001%
Lead (Pb).....	0.002%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powder

SOL.: 0.75 W., 3 A. at 25° C., in 0.5 boil. W. & alm. insol. C., stly E., U.S.P.—ACTION: Refrig.; Antiscor.—USES: *Intern.*, Seidlitz & effervesc. powd., baking powd., cool'g drinks, &c.—*Extern.*, hyperidrosis.—*Techn.*, Chem. industry, dyeing, & printing.—DOSE: 0.3–1.3 Gm. (5–20 grn.) sev'l. t.p.d.—Aver. dose 0.5 Gm. (8 grn.).—INCOMPAT.: Salts of Ca, Sb, Cu, Fe, Pb, Hg, & Ag; lime-water, alkaloids, albumin, gelatin, starch, iodine, iodoform; permanganates, chlorates & o. oxidizers; spt. nitrous ether.

ACID TARTARIC, INACTIVE } see Acid Racemic
ACID TARTARIC, PARA }

ACID *iso*-TARTARIC—see Acid Metatartaric

Acid Tartronic

Propanoldiacid; Oxymalonic Acid.— $CH(OH)(COOH)_2 + \frac{1}{2}H_2O = 129.06$.—Fr. tartaric acid, by oxid'n w. HNO_3 & P_2O_5 .—Wh. or yellowish cryst.—SOL.: Eas. W., A.; diff. E.—MELT.: Abt 185° C. when anhydrous w. decomp.

Acid Taurocholic

"Choleic," or "Choleinic," Acid of Strecker & Demarcay; Choliaic, or Sulphocholeic, Acid.— $C_{26}H_{45}NSO_7 = 515.56$.—Fr. bile.—Yellowish, deliques. cryst. mass.—SOL.: W., A.—MELT.: 180° C.—ACTION: Antisept.; Proteid precipitant.

Acid Telluric Merck

$H_2TeO_4 \cdot 2H_2O = 229.55$.—Wh., heavy, cryst.—SOL.: Hot W., acids & alkalies; stly cold W.—SP. GR.: 3.07—USES: Test f. solanine (Bauer).

Acid Tellurous

$H_2TeO_3 = 177.52$.—Wh., comparatively light cryst. powd.—SOL.: Eas. dil. acids & in alkalies; v. stly W.

(Acid) Tellurous Anhydride

Tellurium Dioxide. — $TeO_2 = 159.50$.—Wh., heavy cryst. powd.—SOL.: Conc. acids & alkalies; v. stly W. & dil. acids.—ACTION: Antisept.—USES: Detect. living bacteria in sera & vaccines (Gosio).

Acid Terebic

Terebinic Acid.— $(CH_2)_2:CO.CH.(COOH)CH_2(CO) = 158.12$.—Fr. terebene by boil. w. HNO_3 .—Wh. cryst.—SOL.: Stly in cold, much more eas. hot, W., & in A.—MELT.: 174° C.

ACID TEREBINIC—see Acid Terebic

Acid Terephthalic

Paraphthalic Acid.— $C_6H_4(COOH)_2[1:4] = 166.09$.—Fr. *p*-xylene, *p*-cymene, or *p*-cuminol by oxid'n w. CrO_3 mixt.—Wh., cryst. powd.—SOL.: Alkalies; alm. insol. W., A., E. & C.—Sublimes without melt.

ACID TERPENOLIC—see Acid Terpenylic

Acid Terpenylic

Terpenolic Acid; Diaterpenic Anhydride.— $C_8H_{12}O_4 = 172.14 + xH_2O$.—Fr. oil turpentine by oxid'n w. $K_2Cr_2O_7$ & H_2SO_4 .—Wh. to yellowish cryst.—SOL.: W.—MELT.: 57° C. when hydrous; 90° C. when anhyd.—Sublimes 130°–140° C.

Acid Tetraboric

Pyroboric Acid.— $B_4O_5(OH)_2 = 157.62$.—Fr. boric acid by heat'g to 140° C.—Vitreous mass or wh. powd.—SOL.: W. (partic. hot); & in A.

Acid Tetraoxystearic

Tetraoxystearinic, or Sativic, Acid.— $C_{17}H_{31}(OH)_4.COOH = 348.38$.—Fr. linoleic acid by oxid'n w. alk. $KMnO_4$.—Wh. cryst. powd. w. fatty feel, & v. slt yellowish tinge.—SOL.: Abt 2000 boil., insol. cold, W.; stly cold, more eas. boil., A. & glac. acetic acid; insol. C., E.—MELT.: 159° C.

ACID TETRAOXYSTEARINIC—see Acid Tetraoxystearic

ACID THIACETIC—see Acid Thioacetic

Acid Thioacetic

Thiacetic, or Ethanethiolic, Acid; Schiff's Reagent.— $CH_3.CO.SH = 76.10$.—Fr. glac. acetic acid by P_2S_5 .—Yellow, fum'g liquid; pung. odor.—SOL.: W. (partic. hot W.), eas. A.—SP. GR.: 1.070–1.080 at 15° C.—BOIL.: 92°–97° C.—USES: In weak NH_4OH solut. as precipitant inst. of H_2S (Schiff-Tarugi).—CAUT.: Reacts violently w. conc. HNO_3 .

ACID THIOLINIC—see Oil Linseed, Sulphurated

ACID THYMIC—see Thymol

Acid Thyminic

Nucleotolphosphoric Acid.—Approx. $C_{20}H_{35}N_3O_{16}P_2 = 635.48$ (Kossel); $C_{30}H_{46}N_4O_{15}.2P_2O_5 = 986.57$ (Minkowski).—Amorph., yellow to brownish-yellow powd.—SOL.: 5 W., alkalies.—ACTION: Uric acid solvent.—USES: Gout, chron. sciatica, lumbago; also in turbidity of lens, due to gout.—DOSE: 0.25–0.6 Gm. (4–10 grn.) sev'l t.p.d.—*Intramusc.*, 0.12 Gm. (2 grn.).

Acid Thymolsulphonic

Alpha-6.thymolsulphonic Acid; 3.Oxy-4.isopropyl-1.methylbenzene-6.sulphonic Acid.— $\text{CH}_3\text{-(C}_6\text{H}_2\text{)[1].(C}_3\text{H}_7\text{)[4].OH[3].SO}_3\text{H[6] + H}_2\text{O = 248.24.}$ —Fr. thymol & cold H_2SO_4 .—Colorl., cryst.; eas. bec. violet in color.—SOL.: Eas. W., A.—MELT.: $91^\circ\text{--}92^\circ\text{C.}$

ACID THYMOLSULPHONIC, ALPHA—see Acid Thymolsulphonic

Acid Tiglic

Methylcrotonic Acid.— $\text{CH}_3\text{.CH:C(CH}_3\text{).COOH = 100.09.}$ —Stereoisomer of angelic acid.—Fr. fixed oil of Croton Tiglium, L. (Croton oil).—Cryst.—SOL.: A., E.; diffic. cold, more eas. hot, W.—MELT.: 64.5°C. —BOIL.: 198°C. —ACTION: Vesic.—USES: Blistering agent.—ANTID.: Milk, oils or mucilage; stim. & opium.—CAUT.: Very poisonous!

Acid Titanic Merck—Hydrated

Titanic Hydroxide.— $\text{Ti(OH)}_4 = 116.13, + x\text{H}_2\text{O};$ the W.-content & also solub. in acids depend upon the method of pptng & the period of drying.—Wh., amorph. powd.—SOL.: Mineral acids; insol. W.—USES: With oxalic acid as mordant in textile industries.

(Acid) Titanic Anhydride Merck

Titanium Oxide, or Dioxide; Anhydrous Titanic Acid.— $\text{TiO}_2 = 80.10.$ —Wh., amorph. powd.; resists fire.—Decomp'd by fusion w. KHSO_4 .—SOL.: HF; insol. W. & mineral acids.—USES: Test f. phenols (Hauser), morphine (Richard), & H_2O_2 (Richardson; Schön; Wobbe).

ACID TOLUIC (or -YLIC), ALPHA—see Acid Phenylacetic

Acid m-Toluic

Metatoluylic Acid.— $\text{C}_6\text{H}_4\text{.CH}_3\text{.(COOH)[1:3] = 136.10.}$ —Fr. *m*-xylene by oxid'n w. HNO_3 .—Wh. to yellowish cryst. powd.—SOL.: Sltly cold, more eas. hot, W., A., E.—MELT.: 110°C. —BOIL.: 263°C. —USES: Organic synthesis.

Acid o-Toluic

Orthotoluylic, Methylphenylformic, or Methylbenzoic, Acid.— $\text{C}_6\text{H}_4\text{.CH}_3\text{.(COOH)[1:2] = 136.10.}$ —Fr. *o*-xylene by oxid'n w. HNO_3 .—Wh., cryst. powd.—SOL.: Sltly cold, eas. hot, W.; v. eas. A.—MELT.: 105°C. —USES: Organic synthesis.

Acid p-Toluic

Paratoluylic Acid.— $\text{C}_6\text{H}_4\text{.CH}_3\text{.(COOH)[1:4] = 136.10.}$ —Fr. *p*-xylene by oxid'n w. HNO_3 .—Wh., cryst. powd.—SOL.: A., E.; alm. insol. W.—MELT.: Abt 180°C. —BOIL.: $274^\circ\text{--}275^\circ\text{C.}$ —USES: Organic synthesis.

ACID TOLUYLIC, META—see Acid *m*-Toluic

ACID TOLUYLIC, ORTHO—see Acid *o*-Toluic

ACID TOLUYLIC, PARA—see Acid *p*-Toluic

Acid Tribromacetic

$\text{CBr}_3\text{.COOH = 296.78.}$ —Fr. bromal by oxid'n w. HNO_3 .—Colorl., lustr. leaflets.—SOL.: Eas. W., A., E.—MELT.: Abt 135°C. w. previous

softening.—BOIL.: $245^\circ\text{ w. decomp.}$ —USES: Organic synthesis.

Acid Tricarballic

Propanetricarboxylic Acid.— $\text{COOH.CH}_2\text{.(CH}_2\text{.COOH).CH}_2\text{COOH = 176.09.}$ —By-prod. in manuf. beet sugar.—Wh., cryst. powd.—SOL.: Eas. W., A., more diffic. E.—MELT.: 166°C.

ACID TRICARBIMIDE—see Acid Cyanuric

Acid Trichloracetic Merck—C.P.

$\text{CCl}_3\text{(COOH) = 163.40.}$ —Fr. glac. acetic acid by Cl in sunlight, or fr. chloral by oxid'n w. fum'g HNO_3 .—Deliq., colorl. cryst.; slt charact. odor.—SOL.: Abt 0.1 W. at 25°C. & v. eas. A., E.—MELT.: 55°C. —BOIL.: 195°C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.030%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.003%
Sulphate (SO_3).....	0.050%
Substcs darkened by H_2SO_4 ...	Trace

USES: *Chem.*, as sensitive urine-albumin test (in substce of 33% solut.), & as precipitant f. protein; also as test f. peptone (Bogomoloff), albumin (Claudius; Raabe), cholesterin (Goldetz; Hirschsohn), coniine (Vitali-Stroppa), quinine (Tsalapatani), & urson (Hirschsohn); general test f. double union in organic comp'ds.

do. Merck—U.S.P. X

DESCRIPT., SOL., MELT., &C.: As of the preceding.—ACTION: As Eschar.; Astring.; Hemostat.—USES: Excellent remedy for remov. warts & similar growths, partic. fr. nose & throat; vener. & cutan. warts, papillomata, vascular nevi, pigment patches, corns, nose-bleed, obstinate gleet, gonorr., nasopharyng. affect., & indol. ulc.—APPL.: Eschar. for corns, warts, etc., pure, or in conc. solut.; astring. & hemost., 1%–3% aq. solut.; 50% solut. appl. to operative wounds to prevent adhesions, inflam. & infection in rectum, female genital tract, etc.—VETER. MED.: Just as in man; also as a 1% solut. f. painting in catarrhs of mucous membranes.—CAUT.: Keep in glass-stop. bot.; soluts decompose.

Acid α - β -Trichlorobutyric

$\text{CH}_3\text{.CHCl.CCl}_2\text{.COOH = 191.44.}$ —Fr. butylchloral by fum. HNO_3 .—Wh. v. hygrosc. cryst.—SOL.: Eas. W., A., E.—BOIL.: $236^\circ\text{--}238^\circ\text{C.}$ —MELT.: 60°C. w. previous softening.

Acid β -Trichlorlactic

$\text{CCl}_3\text{.CH(OH).COOH = 193.42.}$ —Fr. chloral hydrocyanate by conc. HCl.—Wh., hygrosc., cryst. powd.—SOL.: Eas. W., A., C., E.—MELT.: 124°C. when anhydrous.

ACID TRICYANIC—see Acid Cyanuric

ACID TRIHYDROXYBENZOIC—see Acid Gallic

ACID, TRIODO-OXYINDOL- β -PROPIONIC—see Thyroxin

ACID TRIMETHYLTRICARBALLYLIC—see Acid Camphoronic

ACID TRIOXYBENZOIC—see Acid Gallic

Acid *iso*-Trioxystearic

$C_{18}H_{33}(OH)_3O_2 = 332.38$.—Fr. castor oil & alkali. solut. $KMnO_4$.—Wh. cryst.—SOL.: Eas. A., diff. E., C.; insol. cold, v. diff. hot, W.—MELT.: $111^\circ C$.

Acid Tropic Merck

Alphaphenylbetaoxypropionic, Isotropic, or Phenylhydracrylic, Acid.— $C_6H_5.CH(CH_2OH).(COOH) = 166.13$.—Fr. atropine by $Ba(OH)_2$.—Wh. cryst.—SOL.: Cold W., A., E.; v. eas. in hot W.; alm. insol. B., CS_2 .—MELT.: $117^\circ C$.

Acid α -Truxillic

Alphatruxillic, Alphadacinnamic, or Gamma-isotropic, Acid.— $C_{18}H_{16}O_4 = 296.22$.—Acid cleavage prod. of truxillo-cocaine.—Wh. need.—SOL.: Eas. hot A.; diff. A., B., CS_2 .—MELT.: $274^\circ C$.

Acid Tungstic Merck—Pure

Wolframic, or Orthotungstic, Acid.— $H_2WO_4 + WO_3 = 482.02$.—Fr. tungstates, by hot mineral acid.—Yellow powd.—SOL.: HF; eas. in soluts, alkalies & alkali carbonates; insol. W.—USES: Test f. uric acid (Maschke); *techn.*, as mordant in dyeing w. aniline colors; in manuf. plastics.

(Acid) Tungstic Anhydride

Tungsten Trioxide; so-called "Anhydrous Wolframic Acid."— $WO_3 = 232.00$.—Fr. tungstic acid by heat'g at $300^\circ C$.—Heavy, canary-yellow powd.; dark orange-colored when heated.—USES: Manuf. tungstates used in X-ray screens; alloys; filaments f. incandes. lamps; fireproofing fabrics.

ACID UMBELLIC—see Acid Anisic

Acid Undecylenic

$CH_2:CH.(CH_2)_8.COOH = 184.22$.—Fr. castor oil by distil'n in vacuo.—Wh. cryst. mass, or colorl. to sltly yellowish liq. of somewhat rancid odor.—SOL.: Eas. A., C., E.; insol. W.—MELT.: Abt $24^\circ C$. when a test-tube cont. 20 cc. (abt 5 fl. dr.) is warmed carefully w. the hand; on then cool., should solidify again at $22^\circ C$.—SP. GR.: 0.9095 at $25^\circ C$.—BOIL.: $275^\circ C$. w. decomp.

ACID URANIC—see Uranium Oxide, Red, Uranic

ACID UREA CITRATE—see Urea Citrate

ACID UREOUS—see Xanthine

Acid Uric Merck

2.6.8. Trioxypurin. — $CO(NH).NH.CO.C:(C.NH).NH.CO = 168.09$.—Fr. guano or serpent excrement.—Wh., odorl., tastel. cryst. or powd.—SOL.: G., & in solut. lithium carb., sod. acetate, & sod. phosphate; v. eas. alkalies; insol. A., E.; sltly W.—ACTION: Diur.—USES: *Intern.*, edematous heart dis.; persecution mania; pulmon. tuberc.; in gout in incr. phagocytosis.—*Extern.*, as inj. in gout, in 1% aqu. suspens.—DOSE: 6–10 Gm. ($1\frac{1}{2}$ – $2\frac{1}{2}$ dr.) p.d. in edematous heart dis.; even 15–20 Gm. (4–5 dr.) p.d. given to incr. diuresis; in tuberc. & persecution

mania up to 4 Gm. (60 grn.) p.d.—*Subcut.*, 2 cc. (30 M) 1% suspens. w. cocaine & adrenalin.

ACID UVIC—see Acid Racemic

ACID VALERIANIC—see Acid *iso*-Valeric

Acid Valeric—Normal

Normal Propylacetic, or Pentan, Acid.— $CH_3.(CH_2)_3.COOH = 102.11$.—Fr. normal butyl cyanide by KOH.—Colorl. liq.; odor like that of butter & *iso*-valeric acid.—SOL.: 30 W.; eas. A., E.—SP. GR.: 0.945 at $15^\circ C$.—BOIL.: $186^\circ C$.

Acid *iso*-Valeric

Valerianic, Isopropylacetic, or Delphinic, Acid.—Consists chiefly of *iso*-valeric acid.— $(CH_3)_2.CH.CH_2.COOH = 102.11$.—Fr. amyl A. by oxid'n, or fr. valerian root by dist. w. W.—SOL.: W., A., C., E.—BOIL.: Abt $175^\circ C$.—MELT.: $-51^\circ C$.—SP. GR.: 0.938.

do. Merck—Monohydrated

Anhydrous *iso*-Valeric Acid.—Colorl. liq.; strongly acid taste.—SOL.: W., A., C., E.—ACTION: Nervine.—USES: Hyst., mania, nervousn., &c.—DOSE: 0.06–0.5 cc. (1–8 M) sev'l t.p.d. in alcoholic or mucilaginous liquids.—MAX. D.: 0.6 cc. (10 M) single; 2.6 cc. (40 M) p.d.

do. Merck—Trihydrated

Hydrated *iso*-Valeric Acid.— $C_4H_9.COOH + H_2O$, or $C_4H_9.C(OH)_3 = 120.12$.—Colorl. liq.—SOL.: W., A., C., E.—SP. GR.: Abt 0.950.—ACTION: Nervine.

(Acid) Vanadic Anhydride Merck

Vanadium Pentoxide.— $V_2O_5 = 182.00$.—Rust-brown powd.—SOL.: Conc. acids, & alkalies; alm. insol. (1:1000) W.—ACTION: Antisep.—USES: *Intern.*, anemia & cachexy; partic. in France, vanadic acid & its salts (see Iron Vanadate) are used in dis. due to defective metabolism, & partic. in tuberc.; also credited as a bactericide because of its oxidizing properties within the organism.—*Extern.*, as topical applic. in tuberc. & syphil. wounds, chancre, vaginitis, lupus, condylomata, urethritis, endometritis, & ecz. in 1:20000 solut.; in intrauterine wounds, in 5–17:100000 solut.—*Techn.*, in photog. as developer; test f. peroxides (Jorissen), & vinyl alcohol (Matignon); also w. H_2SO_4 as test f. hydrastine (Hirschhausen), ethyl peroxide (Jorissen), sanguinarine (Kügelgen), & H_2O_2 (Mentzel).—DOSE: 0.00025 Gm. ($\frac{1}{250}$ grn.) in 0.015:1000 solut. 2 t.p.d.—VETER. MED.: In glanders, tuberc. dis., etc., & *extern.* as antisep. in 0.0005% solut.

do. —Technical

USES: In form of its salts (ammonium) & as chloride as mordants in dyeing & printing fabrics, & manuf. aniline black.

Acid Vanillic Merck

m-Methylprotocatechuic, or Vanillinic, Acid.— $C_6H_3.COOH.OCH_3.OH [1:3:4] = 168.10$.—Fr. vanillin by oxid'n w. $KMnO_4$.—Wh. to sltly

reddish-yellow; cryst. needles; odorl., or w. v. slt vanilla odor.—SOL.: Sltly cold, more eas. in hot, W.; eas. A.; somewh. more diff., E.—MELT.: 207° C.

ACID VANILLINIC—see Acid Vanillic

Acid Veratric

Dimethylprotocatechuic Acid.— $C_6H_3(OCH_3)_2COOH = 182.13$.—Fr. seeds of *Asagraea officinalis*, Lindl. (*Sabadilla*).—Colorl. or yellowish cryst.—SOL.: v. eas. A., E.; v. sltly W.—MELT.: 182° C.—Sublimable.

Acid Violet

$(C_2H_5)_2N.C_6H_4C(OH).(N[CH_3].C_6H_4.SO_3Na)_2 = 593.50$.—Sodium salt of diethyl dimethyl di-phenyl triaminotriphenyl carbinoldisulphonic acid.—Violet powd.—SOL.: W. & A. w. deep blue color w. violet tinge; insol. E.—USES: Bacterial stain.

ACID WOLFRAMIC—see Acid Tungstic

"ACID WOLFRAMIC ANHYDROUS"—see (Acid) Tungstic Anhydride

ACID YELLOW D—see Tropaeoline 00

ACID YELLOW S—see Naphthol Yellow S

ACID ZAPONIC—see Acid Catechutannic

ACIDOL—see Betaine Hydrochloride

Acitrin

Ethyl Phenylcinchoninate.— $C_9H_5N.C_6H_5.COOC_2H_5 = 277.22$.—Yellow, odorl., tastel. powd.—SOL.: Organic solvents; insol. W.—MELT.: 59° C.—ACTION: Uric Acid Eliminant.—USES: Gout, sciatica, & nerve dis.—DOSE: 0.5–1 Gm. (8–15 grn.) 3–4 t.p.d.

ACME YELLOW—see Yellow T

Accoin

Dipara-amsylmonophenetylguanidine Hydrochloride.— $(NHC_6H_4O[CH_3])_2C:NC_6H_4O.(C_2H_5).HCl = 427.81$.—Wh. odorl., cryst. powd.—SOL.: Abt 17 W.—MELT.: 176° C.—ACTION: Anesth.—USES: Infiltration-anesthesia by Schleich method in 1:1000 solut. cont. 0.8% NaCl. The soluts are often made to contain also cocaine.—APPL.: 2% solut. w. 0.8% NaCl, in dentistry; & f. eye in 1:1000–200 solut. Also in veterin. practice, as 2% aqu. solut. subcut. as local anethet.—CAUT.: Keep fr. light.

ACONELLINE—see Narcotine

Aconite—Leaves—B.P.C.

HABIT., ACTION, & USES: As of Aconite Root (*q.v.*).—DOSE: 0.06–0.2 Gm. (1–3 grn.).—Alcoh. Ext. 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); *Max. D.*, 0.12 Gm. (2 grn.) single, 0.6 Gm. (10 grn.) p.d.—Fl'extr., 0.03–0.2 cc. ($\frac{1}{2}$ –3 M); *Max. D.*, 0.2 cc. (3 M) single, 1 cc. (15 M) p.d.—ANTID.: As of Aconite Root.

do. —Root—U.S.P. X; B.P.; Fr. Cod.

Monkshood; Wolfsbane; Friar's Cowl; Mousebane.—Dried tuberous root of *Aconitum Napellus*, L., Ranunculaceæ.—HABIT.: Mountainous regions of Europe, Asia, & North America.

—CONSTIT.: Aconitine (cryst.), (0.4%, B.P.); aconine; napelline (isoaconitine; pseudoaconitine); picroaconitine; aconitic acid; resin; fat; sugar.—ACTION: Sedat.; Anodyne; Diaphor.; Antipyret.; Myotic.—USES: Chiefly in rheumatism, gout, & neuralgias.—DOSES: *Tuber.*: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); aver. dose 0.06 Gm. (1 grn.).—Alcoh. extr., 0.01–0.03 Gm. ($\frac{1}{6}$ – $\frac{1}{2}$ grn.); *Max. D.*, 0.1 Gm. ($\frac{1}{2}$ grn.) single, 0.36 Gm. (6 grn.) daily.—Fl'dextr., 0.015–0.06 cc. ($\frac{1}{4}$ –1 M); *Max. D.*, 0.12 cc. (2 M) single, 0.6 cc. (10 M) daily.—Tinct. (U.S.P., 0.05% w/v E.-sol. alkaloids), 0.3–0.5 cc. (5–8 M); (B.P., 0.04% w/v E.-sol. alkaloids), 0.12–0.3 cc. (2–5 M).—ANTID.: Heart stimulants (whisky, ether, alcohol, ammonia); digitalis; tannin; artificial respir.; amyl nitrite; atropine; strychnine (hypod.).

ACONITE, INDIAN—see *Aconitum Ferox*

Aconitin Resinoid

Mixed alkaloids & o. principles fr. *Aconitum Napellus*, L.—Brown powd. or resin-like mass.—SOL.: A.—USES: By the Eclectics, for fever, & to relieve pain.—DOSE: 0.003–0.005 Gm. ($\frac{1}{20}$ – $\frac{1}{12}$ grn.) 3–4 t.p.d.—CAUT.: Do not confound with *alkaloid aconitine*. The dose prescribed should be carefully scrutinized before being dispensed.

Aconitine Mild Merck—Amorph.

Mixt. of amorph. alkaloids fr. *Aconitum Napellus*, L.—Yellowish-wh., amorph. powd.—SOL.: A., C., E.—ACTION: Antineur.; Diuretic; Sudorific.—USES: As of aconitine, potent, below, but in larger doses, as less poisonous.—DOSE: 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.) v. carefully increased.—MAX. D.: 0.004 Gm. ($\frac{1}{15}$ grn.) single; 0.03 Gm. ($\frac{1}{2}$ grn.) p.d.—APPL.: 0.25–0.5% oint. or solut.—ANTID.: As of aconitine, potent, below.

do. Potent Merck—Cryst.

Acetylbenzoylaconine; Napelline; not "Napelline" of Dunstan & Ince.— $C_{34}H_{47}O_{11}N = 645.55$, U.S.P. ($C_{33}H_{45}NO_{11} = 631.53$, B.P.).—Fr. root *Aconitum Napellus*, L.—Ident. w. "Duquesnel's" aconitine.—Wh. or colorl., odorl. cryst.; highly poisonous.—SOL.: 28 A., 7 B., abt 65 E., at 25° C., & v. sltly in W., U.S.P.; (35 A. [90%], 1 C., 168 E., oleic acid, at 15.5° C., Sq.).—MELT.: Abt 195° C. when rapid. heated, U.S.P.; 198° C., B.P.—ACTION: Antineural.; Diur.; Sud.; Anesth. (extern.).—USES: *Intern.*, neural., acute or chron. rheum., gout, pleurisy, pneumonia, pericarditis, tonsil., nerv. toothache, &c.—*Extern.* as oint. & linim. in rheumat. & o. pains, but *never* on abraded surfaces; danger of absorption!—DOSE: Aver., 0.00015 Gm. ($\frac{1}{600}$ grn.). Accord. to van Renterghem, 0.0001–0.00025 Gm. ($\frac{1}{600}$ – $\frac{1}{240}$ grn.) sev'l t.p.d. in pill or solut., w. caut.—MAX. D., 0.0005 Gm. ($\frac{1}{120}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) p. day. Ordinarily 0.0003 Gm. ($\frac{1}{200}$ grn.) single, & 0.0006 Gm. ($\frac{1}{100}$ grn.) p.d., is given. No thoroughly reliable statements can be made regard'g the doses of the various aconitines, the more so as the references in literature give rather large ranges. Hence greatest caution

should be exercised in employing aconitine.—APPL.: 1:2000–500 lard, in neuralg., but not on abraded surf.—VETER. MED., *horses & cattle*, 0.003–0.01 Gm. ($\frac{1}{20}$ – $\frac{1}{6}$ grn.); *dogs*, up to 0.001 Gm. ($\frac{1}{60}$ grn.).—ANTID.: Small repeated doses of stimulants; artif. respiration. Atropine & digitalis sugg., but action doubtful; 0.2 Gm. (3 grn.) tannin ev. $\frac{1}{2}$ hr; chlorof. inhalat. in spasms.—INCOMP.: *Physiol.*, atropine, morphine, digitalis, ammonia; *chem.*, alkalis, tannin, mercury salts.—CAUT.: Highly poisonous! Abt 10 times more toxic than the "amorph." above!

do. —Fr. Aconitum Ferox

Pseudo-aconitine; Feraconitine; Nepaul, or British, Aconitine; Veratroylaconine.— $C_{36}H_{49}NO_{12}$ = 687.58.—Fr. roots Aconitum ferox, Wall., (Indian aconite).—Yellowish, amorph. powd.—SOL.: A., C.; alm. insol. W., E.—MELT.: 210° – 212° C. (Freund).—USES: *Extern.*, in neural.—*Intern.*, twice as powerful as aconitine, potent, cryst.—DOSE: 0.00005–0.00015 Gm. ($\frac{1}{1200}$ – $\frac{1}{400}$ grn.).—APPL.: *Extern.*, 0.1–0.15: 100 of alcohol or fat.—CAUT.: Never put on sores or muc. membr.!

do. —Fr. Japanese Aconite

Japaconitine.— $C_{34}H_{49}NO_{11}$ = 647.57 (Dunstan-Read); $C_{66}H_{88}N_2O_{21}$ = 1245.05 (Wright-Luff).—Fr. Japanese Aconite root.—Wh. cryst.—SOL.: v. eas. A., C., E., acetone; alm. insol. petrol. E.—MELT.: Abt 204.5° C.—USES: As of aconitine, cryst., but much more poison. & irritating than cryst. aconitine (Langgaard).—DOSE: $\frac{1}{2}$ less than of aconitine, potent, cryst.—CAUT.: Highly poisonous! Great care!

Aconitine Arsenate—Cryst.

Fr. cryst. aconitine, fr. Aconitum Napellus, L.—Wh. cryst.—SOL.: W., A.—DOSE: As of aconitine, potent, cryst.

do. —Amorph.

Fr. amorph. aconitine, fr. Aconitum Napellus, L.—Yellowish-wh. powd.—SOL.: W., A.—DOSE: As of aconitine, mild, amorph.

ACONITINE CHLORHYDRATE—see Aconitine Hydrochloride

ACONITINE HYDROBROMATE—see Aconitine Hydrobromide

Aconitine Hydrobromide Merck—Cryst.

Aconitine Hydrobromate.— $C_{34}H_{47}NO_{11}HBr \cdot 2\frac{1}{2}H_2O$ = 771.52. (B.P.C.).—Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh. to yellowish cryst.—SOL.: W., A.—MELT.: 163° – 164° C. (B.P.C.).—DOSE: As of aconitine, potent, cryst.

do. —Amorph.

Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish-wh., amorph. powd.—SOL.: W., A.—DOSE: As of aconitine, mild, amorph.

ACONITINE HYDROCHLORATE—see Aconitine Hydrochloride

Aconitine Hydrochloride—Cryst.

Aconitine Hydrochlorate, or Chlorhydrate.— $C_{34}H_{47}NO_{11}HCl \cdot 3H_2O$ = 736.11. (B.P.C.).—Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh. cryst.—SOL.: W., A.—MELT.: 149° C. (B.P.C.).—DOSE: As of aconitine, potent, cryst.

do. —Amorph.

Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish, amorph. powd.—DOSE: As of aconitine, mild, amorph.

Aconitine Nitrate Merck—Cryst.

$C_{34}H_{47}NO_{11}.HNO_3$ = 708.57.—Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh. cryst.—SOL.: A., W.; (10 boil. W., B.P.C.).—USES: Most used of all aconitine salts, espec. in cephalal., trigem. neural., & acute rheumat.—DOSE: As of aconitine, potent, cryst.

do. Merck—Amorph.

Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish powd.—DOSE: As of aconitine, mild, amorph.

Aconitine Oleate—N.F. IV; B.P.C.

2% aconitine.—Yellowish-brown to dark-brown liq.—SOL.: E.—USES: *Extern.*, painful joints & neural.—CAUT.: Use reservedly, & *not* on abraded surfaces.

Aconitine Phosphate

Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh., cryst. powd.—SOL.: W., A.—DOSE: As of aconitine, potent, cryst.

ACONITINE, PSEUDO—see Aconitine Fr. Aconitum Ferox

Aconitine Salicylate—Cryst.

Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh., cryst. powd.—SOL.: W., A.—DOSE: As of aconitine, potent, cryst.

do. —Amorph.

Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish-wh., amorph. powd.—DOSE: As of aconitine, mild, amorph.

Aconitine Sulphate Merck

Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish, amorph. powd.—USES & DOSE: As of aconitine, mild, amorph.

Aconitum Ferox

Indian Aconite; Bish; Visha; Bishma; Bikh-root.—Tuber of Aconitum Ferox, Wallich, Ranunculaceæ.—HABIT.: Nepal; Himalaya Mountains; India.—CONSTIT.: Pseudoaconitine (feraconitine).—USES: As of A. Napellus. Most powerful of all the aconites.—*Techn.*, as source of pseudo-aconitine.

"ACORN SUGAR"—see Quercif

ACRID LETTUCE—see Lactuca

Acridine

$C_6H_4(N.CH)C_6H_4$ = 179.15.—Fr. crude anthracene fraction of gas-tar oils.—Colorl. to yellowish cryst.; pung. odor; burn. acrid taste; irrit.

to skin & muc. memb. The dust & vapors are powerfully sternutatory.—**SOL.:** Eas. A., B., E., CS₂; sltly boil. W.—**MELT.:** 107°–111° C.—**SUBL.:** At abt 100° C.—**BOIL.:** Above 360° C.—**USES:** Manuf. dyes & intermediates; some of the dyes (acriflavine; proflavine) are used as antiseptics.

Acriflavine

Flavine; 3.6. Diamino-10. methylacridinium Chloride. Monohydrochloride; Trypaflavine.— $C_{14}H_{14}N_3Cl \cdot HCl + H_2O = 314.15$.—Dye made fr. acridine (fr. coal tar).—Brownish-red, odorl. cryst. powd.—**SOL.:** Abt 3 W., A.; alm. insol. C., E., & oils.—**ACTION:** Strong Antisep.—**USES:** Wounds.—**APPL.:** 1:1000 solut. in physiol. NaCl solut. by syringe, swab, irrig'n, or on gauze (in cavities) covered w. a protect. dressing. In gonorr. 1:1000 solut. (as above) as inject.; 1:4000 solut. as irrig'n. Solus may be boiled or heated to 130° C. in autoclave without decomp.

do. Neutral

Eufavin (B.P.C.); Neutral Trypaflavine; Neutroflavin; 3.6. Diamino-10. methylacridinium Chloride.— $C_{14}H_{14}N_3Cl + H_2O = 227.68$.—Brownish-red, odorl., gran. powd.—**SOL.:** Abt 3 W., incompletely in A., alm. insol. C., E., oils.—**ACTION, USES, ETC.:** As of acriflavine, but said to be free fr. irritating or smarting action because neutral.

Acrolein

Propenal; Acrylic Aldehyde.— $CH_2:CH.CHO = 56.05$.—Fr. glyc. & $KHSO_4$ by distill'n.—Colorl. to yellowish, v. refractive, inflamm. liq.; v. pungent odor; highly irritat'g to eyes & mucosa.—**SOL.:** Abt 3 W., A., E.—**Sp. Gr.:** 0.8389 at 20° C.—**BOIL.:** Abt 52.5° C.—**USES:** *Techn.*, manuf. intermediates, artif. resins; as disinf. espec. w. formaldehyde, & as military poison gas.

ACRYLIC ALDEHYDE—see Acrolein

ACTÆA—see Cimicifuga

Actinium

Ac = 227(?).—Radioactive substce of the uranium-radium-actinium class, like radium, but more active; gives off β -rays, which in all probability are responsible for the curative results in therapeutics.—Occurs as protactinium together with uranium, & in quantities of abt $\frac{1}{2}$ that of radium.—Brownish-red, finely gran. powd.—**SOL.:** HCl or HNO_3 ; insol. W.—**USES:** As of radium; mammary & rectal carcinoma, lymphosarcoma, etc.—**DOSE:** 0.01 Gm. ($\frac{1}{2}$ grn.) grad. incr. to 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) in emuls. of 0.5:10 physiol. salt solut. by inj. ev. o. day.

ACTOL = Silver Lactate

ADALIN—see Carbromal

ADDERSWORT—see Bistort

ADEPS—see Lard

ADEPS LANAE—see Lanum

ADEPS PETROLEI—see Petrolatum

Adhatoda—B.P.C.

Malabar Nut; Arusa; Adulsa; Vasaca; Adhatodai.—Lvs of Adhatoda Vasica, Nees, Acanthaceæ.—**HABIT.:** East India.—**CONSTIT.:** Adhatodic Acid; vasicine.—**ACTION:** Antispasmod. & Expector.—**USES:** Respiratory dis.; in asthma like stramonium (by smoking); coughs, colds, phthisis, cholera, & diphth.; also as insecticide.—**DOSE:** Tinct. (1:8) 2–4 cc. (30–60 M); fl'dextr., 1–4 cc. (15–60 M).

ADHATODAI—see Adhatoda

Adiantum—Fr. Codex

Maidenhair; Capillaire du Canada.—Fr. Adiantum pedatum, L., Polypodiaceæ.—**HABIT.:** Northern U. S.; Canada; Alaska; Western Asia.—**CONSTIT.:** Volat. oil; bitter principle; tannin; sugar.—**ACTION:** Expector.; Stim.; Demulcent.—**USES:** As syrup or tea in chron. pectoral affections (cough, etc.).

ADNEPHRIN—see Epinephrine

Adonidin Merck

$C_{25}H_{40}O_{10} = 500.45$.—Glucoside fr. foliage of Adonis vernalis, L., & o. spec. Adonis.—Light-brown, v. hygrosc., readily conglutinating, odorl., intens. bitter powd.—**SOL.:** Eas. W., A., fusel oil; insol. C., E.—**ACTION:** Cardiac Stimulant; mild Diur.—**USES:** Heart dis., inst. of digitalis. Espec. useful in mitral & aortic regurgit. & to relieve precordial pain, dyspnea, & palpitation; fatty cardiac degeneration, pericarditis, simple & compensatory hypertrophy, & certain atheromatous condit.; also in chron. diffuse nephrr.; nicotine intoxic., & angina pectoris.—*Extern.*, in 0.25%–1% solut. in physiol. NaCl solut. in ophthalmology, partic. in pains in glaucoma, iritis, & the usual ciliary pains.—**DOSE:** 0.001–0.015 Gm. ($\frac{1}{60}$ – $\frac{1}{4}$ grn.) (0.01–0.06 Gm. [$\frac{1}{4}$ –1 grn.], accord. to Olivieri) best in chlorof. water w. ammon. carbonate.—**MAX. D.:** 0.03 Gm. ($\frac{1}{2}$ grn.) single; 0.1 Gm. ($\frac{1}{2}$ grn.) p.d.—**INJ.:** 1–2 cc. (15–30 M) subcut. of 0.5% solut.—**ANTID.:** Emetics, stomach siphon, tannin, nitroglycerin, morphine, alcoholic stimulants, camphor, mustard cataplasms.—**CONTRAIND.** in high blood pressure, nervous cardiac disorders, & abnormally strong heart action.—**CAUT.:** Keep well stoppered.

Adonis Aestivalis

Pheasant's Eye.—Herb of Adonis aestivalis, L., Ranunculaceæ.—**HABIT.:** Europe; Asia.—Alm. glabrous annual, w. bitter, acrid taste, but scarcely any odor.—**CONSTIT.:** Adonidin.—**ACTION:** Cardiac Tonic; Diuret.—**USES:** Chiefly as an anti-fat; also in valvular insufficiency.—**DOSE:** Tinct. (1:8), 0.6–2 cc. (10–30 M) after meals in lithia water.

Adonis Vernalis—N.F. V

False Hellebore; Vernal Pheasant's Eye; Bird's Eye.—Herb of Adonis vernalis, L., Ranunculaceæ.—**HABIT.:** Europe; Asia; Labrador.—**CONSTIT.:** Adonidin glucoside; berberine; adonidic acid; adonite.—**ACTION:** Cardiac Stim. (like digitalis); Diuret.—**USES:** Dropsy.—**DOSES:** *Herb.* 0.12–0.36 Gm. (2–6 grn.);

aver. dose 0.12 Gm. (2 grn.); of infus. (4-8:200) 15 cc. (4 fl. dr.); *Max. D.* of powd., 0.5 Gm. (8 grn.) single; 1.5 Gm. (24 grn.) daily.—*Aqu.* & *alcoh. extr.*, 0.006-0.06 Gm. ($\frac{1}{10}$ -1 grn.); *Max. D.*, 1 Gm. (15 grn.) daily.—*Fl'dextr.*, 0.03-0.3 cc. ($\frac{1}{2}$ -5 M) sev'l t.p.d.—*Tinct.* (1:8), 0.2-0.6 cc. (3-10 M).—*ANTID.*: Stomach siphon; emetics; tannin; alcohol; opium; brandy.

Adonit

$C_8H_7(OH)_5 = 152.12$.—Sugar (pentite) fr. *Adonis vernalis*, L.—Wh. cryst.; optically inact.—*SOL.*: v. eas. W.; eas. hot A.; insol. E.—*MELT.*: $102^\circ C$.

ADRENAL

ADRENALIN

ADRENAMINE

ADRENINE

see Epinephrine

Adrin

Epinephrine Hydrate. — $2C_9H_{13}NO_3 \cdot H_2O = 384.33$.—Active prin. of suprarenal gland.—Whitish, non-hygroscop. powd.—*ACTION*: Hemostatic; Astring.—*USES*: Minor surgic. operations to prevent bleeding; conjunctivitis, urethritis, etc.—Not mktd in pure form, but in admixt. w. boric acid, as tablets, suppos., solut., oint., inhalant, etc.

ADULSA—see Adhatoda

AEGLA—see Bael

Aeschynite—Mineral

COMP.: Essent. a thoriferous comp'd of cerium titanate & cerium niobate.—*OCCUR.*: Miask, Ilman Mts.; Southern Ural; Hitterö, Norway.—*CRYST. SYST.*: Rhomb.—*FRACT.*: Conchoidal.—*LUSTER*: Submetallic to resinous.—*HARDN.*: 5-6.—*SP. GR.*: 4.93-5.168.

AESCORCIN—see Escorcin

AESCULETIN—see Esculetin

AESCULIN—see Esculin

Aesculus Hippocastanum

Hippocastanum; Horse-chestnut.—Bark & flower of *Aesculus Hippocastanum*, L., Hippocastaneæ.—*HABIT.*: Asia (Persia & Northern India); cultivated in Europe & U.S.—*CONSTIT.*: Esculin; esculetin; tannin. Flowers cont'n quercitrin.—*ACTION*: Febrif.; Astring.; Tonic; Narcotic.—*USES*: *Intern.*, interm. & remit. fevers, diarrh., hemorrhoids.—*Extern.*, rheumat., neuralg., prurigo, frostbite, etc.—*DOSE*: 2-8 Gm. (30-120 grn.) in powd.—*Fl'dextr.*, bark, 1.3-4 cc. (20-60 M).—*Fl'dextr. flowers*, 0.6-2 cc. (10-30 M).

AETHON—see Ethyl Orthoformate

Afenil

"Chlorcalcium Carbamide."— $CaCl_2 \cdot 4CO(NH_2)_2 = 351.20$.—A double salt of calc. chloride (11.42% Ca) & urea (68.28%).—Colorl., stable, powd.—*SOL.*: Eas. W.—*MELT.*: 158° - $160^\circ C$.—Mktd in physiologically standardized 10%

solut. in ampuls of 10 cc. ea.—*USES*: Where calcium therapy required, e.g., hay fever, bronchial & nervous asthma, arteriosclerosis, myocarditis, valvular defects, urticaria, pruritus with urticaria, menorrhagia, metrorrhagia, scrofula, rickets, grippe, pneumonic influenza, nervous diseases, & in anaphylactic conditions.—*DOSE*: 10 cc. intravenously (best) into cubital vein, or intramuscularly (into fatty tissue directly beneath the muscle); should not be given hypodermically. Injections should be made slowly.

AFRICAN PEPPER—see Capsicum

AFRICAN SAFFRON—see Carthamus

Afridol

Sodium Hydroxymercuritoluylate. — $C_6H_3(CH_3)(COONa)HgOH[2:3:1] = 374.70$.—Wh., odorl., tastel. powd.—*SOL.*: NH_4OH cont'g some NH_4Cl ; diffic. in neutr. or acid media.—*ACTION*: Disinf.—*USES*: In surg. & obstetrics, for the hands, & instruments; also in parasitic dis. of scalp & skin (favus, acne, sycosis, seborrh., etc.).—Mktd only as soap.

Agar Merck—Reagent—Shreds or Powd.

Thin, translucent, membranous, yellowish-white shreds, or pale buff, coarse powd.—*SOL.*: Slowly in hot, insol. cold, W.; the 1% solut. forms a stiff jelly on cooling.

MAXIMUM OF IMPURITIES

Ash.....	5.0%
Gelatin.....	1.5%
Starch.....	1.5%

USES: Prepar'g bacteriological culture media.

Agar Merck—U.S.P. X—Coarse Powd., Fine Powd., or Shreds

Agar-Agar; Japan Agar; Japan, Bengal, Ceylon, or Chinese Isinglass or Gelatin; Layor-Carang.—Dried mucilaginous substce extracted fr. *Gelidium corneum* (Hudson) Lamouroux & o. spec. of G. & closely related algae, Rhodophyceæ.—*HABIT.*: Pacific & Indian Oceans, & Japan Sea.—Long, transp., odorl., tastel. strips, or coarse powd.—*CONSTIT.*: Pectin; gelose (paraarabin) abt 60%.—*SOL.*: Hot W. to a viscid, tastel., odorl. jelly; insol. cold W.—*USES*: *Medic.*, in pectoral affect.; in constip. & diarrh.; in glyc. jelly for chapped hands, &c.; & in surg. protheses.—*Techn.*, as nutrient media for bacterial cultures; making emulsions; substitute for gelatin, isinglass, etc. for thickening milk, cream, etc., & in confectionery.—*DOSE*: 4-15 Gm. (1-4 dr.) coarsely comminuted & taken in water or w. food; or added to dough bef. making into biscuits, cakes, etc.

do. Merck—No. 3 Quality

USES: *Techn.*, sizing f. silks, dyeing & printing textiles, adhesives, sensitive photographic emulsions, etc.

AGAR-AGAR }
AGAR, JAPAN } see Agar

Agaric—N.F. V; B.P.C.; Fr. Cod.

Larch Agaric; White Agaric; Male Agaric; Purging Agaric; Amadou; German Tinder.—Fungus, *Polyporus officinalis*, Fries, *Polyporaceæ* (Hymenomycetes, B.P.C.) (*Boletus Laricis*, Jacquin; *B. purgans*, Persoon).—HABIT.: European & Asiatic Russia (grows upon var. spec. *Pinus*, *Larix*, & *Picea*).—Light, fibrous, grayish-white to pale-brown, spongy, friable pieces of irreg. shape; feeble odor. & bitter, acid, yet somewh. sweetish taste.—CONSTIT.: Agaric acid (agaricin); agaricoresin; agaricol; phytosterin; ricinoleic acid; cetyl alcohol; resins.—ACTION: Antihidrotic; Purg.—USES: *Medic.*, purg., & to relieve colliquative night-sweats of phthisis.—*Techn.*, in manuf. of biters.—DOSE: 2–4 Gm. (30–60 grn.) as purg.; aver. dose 0.6 Gm. (10 grn.); larger doses emetic; 0.2–0.6 Gm. (3–10 grn.) as antihidrotic.

AGARIC, LARCH, MALE, PURGING, or WHITE—see Agaric

Agaricin Merck

Laricin—Active constit. of *Polyporus officinalis*, Fries.—Yellowish powd.—SOL.: Hot A., hot W., & alkalies.—ACTION: Efficient Antihidr.—USES: In phthisical & other enervating night-sweats, & sweating fr. antifebrin, antipyrine, exalgin, resorcinol, phenacetin, & salicylates.—DOSE: 0.005–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{3}$ grn.).—*Subcut.* 1 cc. (15 M) of a solut. of 0.05 Gm. ($\frac{3}{4}$ grn.). in 4.5 cc. (68 M) alcohol & 5.5 cc. (82 M) glycerin.—MAX. D.: 0.1 Gm. ($\frac{1}{2}$ grn.).—See also Acid Agaricic.

"AGARICIN"—see Acid Agaricic

AGNIN }
AGNOLIN } see Lanum, Anhydrous

AGOBILIN—see Agocholan

Agocholan

Agobilin; Strontium Cholosalicylate.—ACTION: Cholagogue.—USES: In disposition to cholelithiasis or cholecystitis; habitual constipation, mild jaundice.—DOSE: 1–3 tablets (so marketed) after breakfast & dinner. Each tablet (sugar coated) contains 0.12 Gm. (2 grn.) Agocholan & 0.012 Gm. ($\frac{1}{5}$ grn.) ph'thalein diacetate.

"AGONIADIN"—see Plumierid

AGOTAN—see Cinchophen

AGOPYRUM—see Triticum

AGUE-TREE—see Sassafras

Agurin

Theobromine-Sodium Acetate.— $C_7H_7N_4O_2Na + NaC_2H_3O_2 = 284.16$.—63% theobromine.—Wh. hygrosc. powd.; distinct. alkal. reaction.—SOL.: Eas. W.; sltly cold, more eas. hot, A.—ACTION: Diuret.—USES: Heart dis., peritonitis, & hepatic cirrhosis; myocardial degen., & nephri.; also in dropsy.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.—VETER. MED.: *Horses*, 10 Gm. (150 grn.), & *dogs*, 1–1.5 Gm. (15–23 grn.) 3 t.p.d.—INCOMP.: Acids; $FeCl_3$; $HgCl_2$;

$MgSO_4$; $AgNO_3$; some alkaloids; lead acetate; tartar emetic; gives a soft mass when triturated w. chloral hydrate, phenol, or piperazine.—CAUT.: Keep in well-stop. bot.

AIROFORM, OR AIROGEN—see Airol

Airol

Bismuth Iodosubgallate, or Oxyiodogallate; Airolform; Airogen.— $C_6H_2(OH)_3COOBi(OH) = 522.00$.—Grayish-green, odorl., tastel., bulky powd.—SOL.: Alkal. solut.; dil. mineral acids; insol. A., C., E., oils; decomp. by W. (B.P.C.).—ACTION: Antiseptic.—USES: *Extern.*, dust-powd. (pure or diluted) on burns, wounds, ulc., chancres, corneal ulcers, & blennorrh. neonatorum; in gonorr. by insufflation, or by inj. in glycerin suspens.; also as 10%–20% oint.—INCOMP.: Calomel, metals, moist air.

Alabaster—Mineral

COMPOS.: Brittle fine grained, native wh. modification of gypsum; $CaSO_4 \cdot 2H_2O$.—CRYST. SYST.: Monosym.—STREAK: Wh.—HARDN.: 1.5–2.—SP. GR.: 2.314–2.328.—USES: As of calc. sulphate; also in sculpture, ornaments, etc.

 α -Alanin

Propionic Glycocol; Inactive Alpha-aminopropionic Acid.— $CH_3 \cdot CH(NH_2) \cdot COOH = 89.08$.—Fr. aldehyde-ammonia by HCN & HCl .—Wh. cryst.—SOL.: 4.6 W. at 17° C.; 500 cold 80% A.; insol. E.—MELT.: 285° C. w. decomp. when rapidly heated.

ALANT CAMPHOR—see Helenin

ALANT STARCH, OR ALANTIN—see Inulin

ALANTACID ANHYDRIDE—see Helenin

Alantol

Pinguin.— $C_{10}H_{16}O = 152.18$.—Fr. root *Inula Helenium*, L. (*Elecampane*), by distil. w. W.—Yellow to brownish-yellow liq.; odor & taste like those of peppermint.—SOL.: A., C., E.—BOIL.: 200° C.—ACTION: Intern. Antisep.; Anticatar.—USES: Inst. of turpentine, in pulmon. tuberc.—DOSE: 0.01 cc. ($\frac{1}{5}$ M) 10 t.p.d., in pill, powder, or alcoh. solut.

ALANTOLACTONE—see Helenin

ALAPURIN—see Lanum, Anhydrous

Albargin

Gelatose-Silver.—Fr. $AgNO_3$ & gelatose obt. fr. gelatin by dialysis.—Coarse, lustrous, odorl., yellow powd.; 13%–15% Ag.—SOL.: v. eas. W.—ACTION: Astringent; Bactericide; Antiseptic.—USES: Gonorr., ophthalmoblennorr., dis. of large intestines, etc.—APPL.: 0.1%–0.2% solut. in gonorr.; in intestin. affect., enemas of 0.16% solut.; in eye dis., 10%–20% solut. w. 20% G.—INCOMP.: Tannin; chlorides.—Stains, while recent, may be removed w. soap & W.; old stains are removed w. a 10%–20% solut. sod. thiosulphate.—CAUT.: Keep in amber bot.

ALBOLINE—see Petrolatum, White

ALBOLINE—see Petrolatum, Liquid

Albumin Merck—Fr. Blood

Serum Albumin.—Brownish, amorph. lumps, scales, or powd.—**SOL.**: Swells at first in W., then grad. diss.—**USES**: *Techn.* in fixing insol. dyes on fabrics.—**CAUT.**: Keep dry.

do. Merck—Fr. Eggs—Soluble—Impalpable Powd.

Dried White of Egg.—Yellow, transp., amorph. lumps or scales, or yellowish powd.—1 dry albumin=7 to 8 liquid egg albumin.—**SOL.**: At first swells in W., then grad. diss.; at 60°–70° C. the albumin coagulates.—**USES**: Chiefly *techn.* for clarifying & refining sugar & vinous liquids; manuf. cements (w. lime), adhesives, varnishes, & ivory substitutes; in photogr. f. manuf. albumin paper & coating plates; sizing paper & printing fabrics; rendering certain dyes fast; stamping w. gold & bronze powder; leather manuf.; also as test f. foreign oils in olive oil (Brullé), & sugar color & wine colors (Dietzsche).—**INCOMP.**: HgCl_2 , CuSO_4 , AgNO_3 , FeCl_3 , H_2O_2 , phenol, picric acid, alum, tannic acid, formaldehyde, ether, alcohol; also heat.—**CAUT.**: Keep dry.

do. Merck—Ph.G. 4—Scales

ALBUMIN CHOLATE—see Ovogal

Albumin Tannate—U.S.P. X

Tannin Albuminate; Albutannin.—Yellowish-wh., odorl. powd.; 50% tannin.—**SOL.**: Decomp. by alkali hydroxides & carbonates; insol. W., A., C., E.—**ACTION**: Intest. Astring.; Antidiar. Reported not acted upon in stomach, but slowly decomp. in the intestines.—**USES**: Acute dysent., chron. intestinal catarrh, summer complaint, diar., in phth., &c.—**DOSES**: 1–4 Gm. (15–60 grn.) hourly until effect noticeable, then 3–5 t.p.d., w. W., & continued in diminished dose f. a few days after diarrhea ceases; aver. dose 2 Gm. (30 grn.). *Nurslings*, 0.3–0.5 Gm. (5–8 grn.) ev. $\frac{1}{2}$ hr at first, then 4 t. daily, in gruel, or o. mucilaginous vehicle; *children*, up to 1 Gm. (15 grn.) per dose.

ALBUMINIZED IRON—see Iron Albuminated

ALBUTANNIN—see Albumin Tannate

ALCANNIN—see Extract Alkanet

Alcohol—95% (by Vol.), U.S.P. X

Ethyl Alcohol, or Hydroxide; Ethanol; Spirit Wine; Rectified Spirit.— $\text{C}_2\text{H}_5\text{OH} = 46.06$.—Contains not less than 92.3% by wt, or abt 94.9% by vol. A., U.S.P.; (85.68% by wt, or 90% by vol. B.P.).—**Fr.** grain, starch or sugar, by ferment. w. *Torula cerevisiae*.—**Colorl.**, volat., inflam. liq.; penetrat., agre. odor; burn. taste.—**MISC.**: W., E., C.—**SP. GR.**: Not above 0.816 at 15.56° C., or 0.810 at 25° C., U.S.P.; (0.8337 [90% A.] at 15.5° C., B.P.).—**BOIL.**: Abt 78° C.—**ACTION**: Antipyret.; Roborant; Irrit.—**USES**: *Intern.*, diluted, in low fevers, debility fr. acute dis., to aid digestion, warm the chilled, check nausea of sea-sick.—*Extern.*, liniments, harden skin, disinf. the hands, remov. desicc. epith., antisept. wash f. wounds; felons, lymphangitis, phlegmon, incipient ab-

scess; wet compress in appendicitis, tuberculous peritonitis, perforation, & peritonitis in typhoid.—*Subcut.*, into nerve trunk in facial neuralg. & sciatica.—Also *techn.* v. extensively.—**DOSE**: 4–15 cc. (60–240 M), in 2–6 times its volume of W.—*Subcut.*, 1–1.5 cc. (15–24 M) of 80% A. w. a little cocaine or stovaine.—**ANTID.**: In acute poisoning, siphon the stomach or give emetic. Maintain respiration w. atropine or belladonna, & bodily heat w. hot-water bags to hands & feet, w. applic. of ice to head; irritants, cold douche, inhal. of ammonia, fresh air.—**INCOMP.**: Acacia, albumin, Br, Cl, CrO_3 , permanganates.—**CAUT.**: Do not mix suddenly w. nitric acid. Keep fr. flame!

do. —Diluted, U.S.P. X

Abt 41.5% by wt, or abt 48.9% by vol. $\text{C}_2\text{H}_5\text{OH}$ —**Fr.** eq. vols. A. & W.—**SP. GR.**: Abt 0.936 at 15.6° C., or abt 0.931 at 25° C.

do. —Diluted, 70%, B.P.

100 vol. 90% A. + 31.05 vol. W.—**SP. GR.**: 0.8899 at 15.5° C.

do. —Diluted, 60%, B.P.

100 vol. 90% A. + 53.65 vol. W.—**SP. GR.**: 0.9134 at 15.5° C.

do. —Diluted, 45%, B.P.

100 vol. 90% A. + 105.34 vol. W.—**SP. GR.**: 0.9435 at 15.5° C.

do. —Diluted, 20%, B.P.

100 vol. 90% A. + 355.8 vol. W.—**SP. GR.**: 0.9760 at 15.5° C.

do. Dehydrated—99% by Wt, U.S.P. X; B.P.

Ethyl Hydroxide, Absolute (Anhydrous) Alcohol; Ethanol.— $\text{C}_2\text{H}_5\text{OH} = 46.06$.—**Transp.**, colorl., v. limpid, mobile inflam. liq.; pleas. odor; burning taste.—**MISC.**: E., C., W.—**SP. GR.**: Not above 0.798 at 15.56° C. = 46° Bé.; 0.790 at 25° C., U.S.P.; 0.797 at 15° C., B.P.—**BOIL.**: 78.5° C.—**ACTION**: Stim.—**USES**: Chiefly solvent.—**Absorbs** W. rap. fr. air.—**CAUT.**: Keep well stoppered, cool, & fr. flame!

do. Denatured

Ethyl alcohol to which has been added some substance or substances which, while allowing the use of the alcohol in the most varied industries & arts, render the alcohol entirely unfit for consumption as a beverage. The most common denaturants are the following: Wood alcohol; camphor & wood alcohol; benzene & wood alcohol; methyl A., castor oil, & soda lye; nicotine & aniline dyes; ether w. cadmium & ammonium iodide; methyl A. & pyridine bases; pyridine & benzene; acetone & petrol. naphtha; ether & H_2SO_4 ; methyl A. & ZnCl_2 ; ether & kerosene; diethylphthalate. Pharmacists who hold permits and have given bonds may also sell alcohol denatured according to any one of the following formulas:

- (1) Carbolic acid 1 part, alcohol 99 parts
- (2) Formaldehyde 1 part, alcohol 250 parts
- (3) Bichloride of mercury 1 part, alcohol 2,000 parts

- (4) Bichloride of mercury 0.8 Gm., hydrochloric acid 60 cc., alcohol 640 cc., water 300 cc.
- (5) Bichloride of mercury $1\frac{1}{2}$ grn., hydrochloric acid 2 drams, alcohol 4 ounces.
- (6) Formaldehyde 2 parts, glycerin 2 parts, alcohol 96 parts.
- (7) Carbolic acid 1 dram, tannic acid 1 dram, alcohol 1 pint, water 1 pint.
- (8) Alum $\frac{1}{2}$ ounce, formaldehyde 2 drams, camphor 1 ounce, alcohol and water each 1 pint.
- (9) Lysol, 1 part, alcohol 99 parts.
- (10) Liquor Cresolis Comp. (U.S.P.) 10 cc., alcohol 1,000 cc.

The container of such alcohol must in every case bear a "poison" label. The following is also authorized for making tooth paste only: Alcohol 5 gals., glycerin 5 lbs., & hard soap 1 lb. Ethyl A. denatured w. methyl A. is also used in automobiles to prevent freezing of water in radiators.

1 vol. A. + 3 vol. W.	freezes at 0° F.
$3\frac{1}{2}$ " A. + $6\frac{1}{2}$ " W.	" " -15° F.
4 " A. + 6 " W.	" " -25° F.
A 20% alcohol	freezes at -10° F.
" 30% "	" " -15° F.
" 40% "	" " -20° F.
" 50% "	" " -35° F.

Alcohol—Deodorized

Perfumer's Alcohol; Cologne Spirits.—Com'l A. free fr. fusel oil & purified.—Cont. 95.1% by vol. abs. A.—Colorl., limpid, inflam. liq.; pure ethylic alc. odor.—Misc.: A., C., E.—Sp. Gr.: Abt 0.816 at 15.5° C.—USES: Perfume & comp'd spirits.—CAUT.: Keep well stopp'd, cool, fr. flame!

Alcohol Allylic—98%–100%

Allyl Alcohol.— $\text{CH}_2\text{:CH.CH}_2\text{OH}$ = 58.06.—Fr. glyc. by distill'n w. oxalic acid.—Colorl., limpid liq.; pung., mustard-like odor; v. irrit. to the eyes.—SOL.: W., A., C., E., & petrol. E.—BOIL.: Abt 96° C.—Sp. Gr.: 0.858 at 15° C.—USES: Manuf. intermediates; poison war gas (vapors irritate eyes & muc. membranes).—CAUT.: Poison! (50 times more toxic than propyl A.)

Alcohol Amylic Merck—Reagent

Amyl Alcohol.— $\text{C}_5\text{H}_{11}\text{OH}$ = 88.12.—Clear, colorl., neutr. liq.—MISC.: A., B., E.; sltly sol. W.—Sp. Gr.: 0.812–0.815 at 15° C.—BOIL.: 130°–132° C.

MAXIMUM OF IMPURITIES

Evap'n Res.	0.003%
Organ. Impur.	Trace
Aldehyde (Furfural)	None
Water	0.000%

USES: Forensic anal., solvent f. alkaloids (partic. morphine), & reagent f. naphrorosein (Arnold), lignin (Kaiser), caramel (Marsh), & skatol red (Rössler).

Alcohol Amylic Merck—C.P.

Isoamyl, or Fermentation Amyl, Alcohol.—Fr. pentane & Cl.—Clear, colorl. liq.; charact.,

strong, stupefying odor.—MISC.: A. E., benzoin; sltly sol. W.—Sp. Gr.: 0.814–0.816 at 15° C.—90% dist. betw. 130°–132° C.

MAXIMUM OF IMPURITIES

Evap'n Res.	0.010%
Organic Impurities	Trace
Water	0.000%

USES: As of the Reagent, above; also in microsc. f. embedding & dehydrating celloidin sections.

do. Merck—Pure

Pure Fusel Oil.—Consists chiefly of isoamyl alcohol (isobutylcarbinol), $(\text{CH}_3)_2\text{CH.CH}_2\text{CH}_2\text{OH}$, w. some levogy. *d*-amyl alcohol (methyl ethylcarbinol), $\text{CH}_3\text{C}_2\text{H}_5\text{CH.CH}_2\text{OH}$.—SOL.: As preced'g.—90% distills over betw. 125°–132° C.—USES: *Extern.*, inoperable cancer, 3 drops, incr. to 10 drops, appl'd to ulcer twice daily.—*Techn.*, in artif. fruit essences; manuf. amyl nitrite, valeric acid; manuf. many alkaloids.

do. Merck

Crude Fusel, Grain, or Potato-spirit, Oil.—By-product of alc. ferment. of grain or potatoes.—Yellowish liq.; pungent, repulsive taste; unpleasant odor causing cough; vapors v. poisonous.—SOL.: Eas. A., C., E.; v. sltly W.—Sp. Gr.: Approx. 0.83 at 15° C.—BOIL.: 90°–133° C.—USES: Chiefly as solv.; also in manuf. mercury fulminate, pyroxylin, artif. silk, pegamoid, aniline dyes, lacquers, smokeless powders; photography; also as illuminant.

ALCOHOL (ANHYDROUS), ABSOLUTE—see Alcohol Dehydrated

ALCOHOL AMYL, TERTIARY—see Amylene Hydrate

Alcohol Benzylic Merck—C.P.

Benzyl Alcohol; Phenmethylo.— $\text{C}_6\text{H}_5\text{CH}_2\text{OH}$ = 108.10.—Fr. benzaldehyde by KOH.—Colorl., clear liq.; faint arom. odor; sharp, burn. taste.—SOL.: Abt 25 W.; all prop. A., C., E., methyl A.—Sp. Gr.: 1.040–1.050 at 15° C.; abt 1.044 at 25° C.—BOIL.: 200°–206° C.

MAXIMUM OF IMPURITIES

Ignition Res.	0.005%
Chlorinated Products	0.004%
Aldehydes	0.000%

USES: *Chem.*, chiefly in laboratory syntheses.—*Medic.* as a loc. anesth. in 1%–4% solut. in W. or physiol. salt solut. by subcut. inject. of 5 cc. solut., or applied to mucous membranes. Solut. may be sterilized by boil. Non-toxic & non-irritant in ordinary concentration & doses.

ALCOHOL, BORNYL—see Borneol

Alcohol Butylic—Normal

Propylcarbinol; Butyric, or Normal Primary Butyl, Alcohol; 1. Hydroxybutane; Butanol [1].— $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$ = 74.10.—Fr. butylaldehyde by Na-amalgam.—Colorl., viscid, h'ly refract. liq.; burns w. a strongly luminous flame; leaves a transitory greasy spot on paper; strong odor like that of isobutyl alcohol, but towards the end v. much like that of fusel oil but much weaker; when heated the vapors

irritate & cause cough.—SOL.: Abt 12 W.; eas. A., E.—SP. GR.: 0.814.—BOIL.: 117° C.

do. —Secondary

Methylethylcarbinol; Butylene Hydrate; 2-Hydroxybutane; Butanol[2]. — $\text{CH}_3\text{CH}_2\text{CHOH.CH}_3 = 74.10$.—Fr. acetaldehyde & zinc-diethyl.—Colorl., viscid liq.; vinous odor.—SOL.: 8 W. at 20° C.; eas. A., E.—SP. GR.: 0.808 at 15° C.—BOIL.: 99° C.

do. —Tertiary

Trimethylcarbinol; Tertiary Isobutylalcohol; 2-Hydroxymethylpropane; 2-Methylpropanol [2].— $(\text{CH}_3)_3\text{C.OH} = 74.10$.—Fr. isobutylene & dil. H_2SO_4 ; also by ferment'n.—Colorl. mass consist. of needles, & grad. separ. into plates; camph. odor; at summer temp. melts to a colorl. viscid liq. burn. w. a smoky flame.—SOL.: Eas. misc. all proport. W., A., E.—SP. GR.: Not over 0.785 at 25° C.—SOLIDIF.: Abt 23° C.—MELT.: 25°–25.5° C.—BOIL.: Abt 83° C.

Alcohol *iso*-Butylic Merck

Isopropylcarbinol; Primary Isobutyl Alcohol; Primary Pseudopropyl Alcohol; 1-Hydroxymethylpropane; 2-Methylpropanon [1]; Fermentation Butyl Alcohol.— $(\text{CH}_3)_2\text{CH.CH}_2\text{OH} = 74.10$.—Fr. fusel oil; also by ferment'n.—Colorl., viscid, v. refract. liq.; eas. inflam. & burns w. a luminous flame; odor like that of amyl A. but weaker.—SOL.: 10 W.; eas. A., E.; can diss. 15% W. without turb.—SP. GR.: 0.805–0.807 at 15° C.—BOIL.: Abt 106° C.—USES: Manuf. fruit essences & flavoring comp'ds; intermediates; solvent; in paint & varnish removers.

ALCOHOL, CAPRYL, SECONDARY—see Alcohol Caprylic

Alcohol Caprylic—Normal, Primary

Alcohol Octylic; Octanol [1].— $\text{CH}_3(\text{CH}_2)_6\text{CH}_2\text{OH} = 130.18$.—Fr. volat. oil of *Pastinaca sativa*, L.—Colorl. liq.; penetrating, aromat. odor.—MISC.: A., C., E.—BOIL.: Abt 195° C.—SP. GR.: 0.828 at 15° C.

do. Merck—Normal, Secondary

Octanol [2]; Secondary Capryl, or Octylic, Alcohol; Methylhexylcarbinol; β -Hydroxyoctane.— $\text{CH}_3(\text{CH}_2)_5\text{CHOH.CH}_3 = 130.18$.—Fr. castor oil by distil'n w. CaO .—Colorl., oily, refract. liq.; arom. yet somewh. unpleas. odor, partic. on heat.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 0.822–0.826 at 15° C.—BOIL.: 179° C.

ALCOHOL, CAUSTIC—see Sodium Ethylate, Dry

ALCOHOL, CETYL—see Alcohol Cetyllic

Alcohol Cetyllic

Ethyl; Ethol; Cetyl, or Hecdecatylic, Alcohol; Normal Primary Hexadecyl Alcohol; Palmityl Alcohol.— $\text{C}_{16}\text{H}_{33}\text{OH} = 242.35$.—Fr. spermaceti, by saponif. w. KOH .—Wh. cryst.—SOL.: A., C., E.—MELT.: 50° C.—BOIL.: 344° C.—Does not render the skin smooth & slippery but velvety.—USES: With boric acid (1:1) or talcum (1:5) f. chapped hands, weeping ecz., & prurigo, etc.

ALCOHOL, CINNAMIC, or CINNAMYLIC—see Styrene

ALCOHOL, CUMIN—see Alcohol Cumenic

Alcohol Cumenic

Paraisopropylbenzyl Alcohol; Cumin Alcohol; 4-Methoxyphenylmethylol. — $(\text{CH}_3)_2\text{CH.C}_6\text{H}_4\text{CH}_2\text{OH} = 150.16$.—Fr. cuminal by NaOH & KMnO_4 .—Colorl. to stlty yellowish liq.; intense, persist., caraway-like odor & burn., arom. taste.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 0.980 at 15° C.—BOIL.: 243°–246° C.

ALCOHOL, DICHLORISOPROPYL—see Dichlorhydrin

ALCOHOL, ETHYL—see Alcohol

ALCOHOL, ETHYLENE—see Ethyleneglycol

ALCOHOL, GLYCYL—see Glycerin

ALCOHOL HECDECATYLIC—see Alcohol Cetyllic

ALCOHOL, HEPTYL, NORMAL—see Alcohol Heptylic

Alcohol Heptylic

NormalHeptylAlcohol; Heptanol[1]; 1-Hydroxyheptane; Oenanthal Alcohol.— $\text{CH}_3(\text{CH}_2)_5\text{CH}_2\text{OH} = 116.16$.—Fr. oenanthal by reduct. w. H .—Colorl., oily liq.; odor like that of capryl alcohol, but less intense.—SOL.: Eas. A., E., insol. W.—SP. GR.: 0.825.—BOIL.: 176° C.

ALCOHOL, HEXADECYL, NORMAL, PRIMARY—see Alcohol Cetyllic

ALCOHOL, ISOAMYL—see Alcohol Amylic

ALCOHOL, ISOBUTYL—see Alcohol *iso*-Butylic

ALCOHOL, *p*-ISOPROPYLBENZYL—see Alcohol Cumenic

ALCOHOL, MELISSYL—see Alcohol Myricylic

ALCOHOL, METHYL—see Alcohol Methylic

Alcohol Methylic Merck—Reagent—Abt 99.4%, Free fr. Acetone

Methanol.— $\text{CH}_3\text{OH} = 32.04$.—Clear, colorl. liq.—MISC.: W., A., E.—SP. GR.: Not over 0.799.—BOIL.: abt 67° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Acetone.....	0.010%
Aldehydes.....	0.000%
Chloroform (CHCl_3).....	0.010%
Ethyl Alcohol.....	Abt 1%
Substcs Darkened by H_2SO_4	None
Substcs Reduc'g KMnO_4	None

USES: Solvent, especially f. prepar'g soluts f. imbedding & stain'g in bacteriology, pathology, etc.; prepar'g pure anhydrous glucose; estimat'g H_3BO_3 ; also as reag. f. H_3BO_3 (Alcock), skatol (Sasaki), & salicylic acid.

Alcohol Methylic Merck—C.P.—Free fr. Acetone

Methanol; Methyl Hydroxide or Hydrate; Methyl Alcohol; Wood Alcohol, Spirit, or Naphtha; Carbinol.— $\text{CH}_3\text{OH} = 32.04$.—By destruct. distil'n of wood, or by synthesis.—Colorl., clear, v. mobile liq.; burns w. a non-luminous flame.—MISC.: W., A., & E.—SP. GR.: Not over 0.800.—BOIL.: 65° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.003%
Acetone.....	0.010%
Aldehydes.....	Trace
Substcs Darkened by H ₂ SO ₄ ...	Trace
Substcs Reduc'g KMnO ₄	Trace

USES: As of preced'g, but partic. where only minimal quantities of acetone desired. Not employed medicinally; its use as a substitute for ethyl alcohol for tinctures, solutions, lotions, & cosmetics is not permissible, as when used intern. or extern. it may develop toxic & even lethal effects.—ANTID.: Gastric lavage; hot baths; copious ingestion of liquids; diuretics; violent exercise; forced breathing in well ventilated places; salt infusions; venesection; transfusions.

do. Merck

DESCRIPT., & PROPERTIES: As of Methyl Alcohol, C.P.—SP. GR.: Not over 0.800 at 15° C.—BOIL.: 65° C.—USES: *Techn.*, inst. of ethyl alcohol as fuel; in polishes; lacquers, & varnishes; manuf. aniline dyes, intermediates, explosives, formaldehyde, celluloid, moving-picture films; solvent f. resins, gums, shellac, etc.; denaturing alcohol; purifying petroleum; thawing frozen gas pipes; as anti-freeze in automobile radiators, in paint & varnish removers, etc.

ALCOHOL, MONOCHLORETHYL—see Ethylene Chlorhydrin

Alcohol Myricylic

Melissyl Alcohol. —C₃₀H₆₁.OH=438.65.—Fr. myricin by alcoh. KOH.—Wh. powd.—SOL.: Eas. B., E.; insol. W.; alm. insol. in cold A., but sol. w. heat; on rapid. cool'g these soluts a gelat. ppt. forms, but on slowly cool'g they solidify to a wh. mass.—MELT.: 88° C.

ALCOHOL OCTYLIC—see Alcohol Caprylic

ALCOHOL, OENANTHAL—see Alcohol Heptylic

ALCOHOL, PALMITYL—see Alcohol Cetyllic

ALCOHOL, PARAISOPROPYLBENZYL—see Alcohol Cuminic

ALCOHOL, PERFUMER'S—see Alcohol, Deodorized

ALCOHOL, PHENYLALLYLIC—see Styrene

ALCOHOL, PROPENYL—see Glycerin

ALCOHOL, PROPYL, FERMENTATION } see Alcohol
ALCOHOL, PROPYL, PRIMARY } Propylic

ALCOHOL, PROPYL, SECONDARY—see Alcohol *iso*-Propylic

Alcohol Propylic Merck—Normal

Primary Propyl Alcohol; Propanol [1]; Ethylcarbinol; Fermentation Propyl Alcohol.—CH₃.CH₂.CH₂OH = 60.08.—Fr. fusel oil.—Colorl. liq.; alcoh. & sltly stupefying odor.—SOL.: W., A., E. in all proport.—SP. GR.: 0.806–0.809 at 15° C.—BOIL.: 97° C.—USES: *Techn.*, inst. of ethyl alcohol generally, except f. intern. use, & as dermatological & surgical disinf.; solvent f. resins & cellulose esters; manuf. explosives & intermediates.

Alcohol *iso*-Propylic Merck

Secondary Propyl, or Pseudopropyl, Alcohol; Dimethylcarbinol; 2-Hydroxypropane; Propanol [2].—CH₃.CHOH.CH₃ = 60.08.—Fr. isopropyl iodide & PbO(OH)₂, or fr. acetone by nasc. H.—Colorl., liq.; weak alcoholic odor somewh. resembl. that of acetone.—SOL.: Eas. W., A., E.—SP. GR.: 0.790–0.796 at 15° C.—BOIL.: 82°–83° C.—USES: Inst. of ethyl alcohol as a solvent, & partic. in perfumery & cosmetics (not adapted f. internal use); manuf. intermediates, & spirit lacquers & varnishes.

ALCOHOL, PSEUDOPROPYL—see Alcohol *iso*-Butylic, & *iso*-Propylic

ALCOHOL, SALICYL—see Saligenin

ALCOHOL, STYRYLIC—see Styrene

ALCOHOL, WOOD—see Alcohol Methyllic

“ALCOHOLIZED” IRON—see Iron by Hydrogen, Gray

ALDEHYDE }
ALDEHYDE, ACETIC } see Aldehyde Ethylic

Aldehyde-Ammonia Merck

Ammoniated Ethylic Acetaldehyde.—CH₃CH(OH)(NH₂) = 61.07.—Fr. acetaldehyde by NH₃.—Colorl. cryst.; grad. turn brown in air.—SOL.: Eas. W.; sltly in E.—MELT.: 94°–96° C.—BOIL.: 100°–104° C.—USES: Prep'g pure aldehyde.—CAUT.: Keep fr. light & air.

Aldehyde Anisic Merck

Anisaldehyde; Paramethoxybenzaldehyde; Aubépine.—C₆H₄(O.CH₃).CHO[4:1] = 136.10.—Fr. anethol by HNO₃, or K₂Cr₂O₇ & H₂SO₄.—Colorl. to yellowish liq.; arom. odor.—MISC.: Eas. A., E.—BOIL.: 248° C.—MELT.: Abt 1° C.—SP. GR.: 1.120 at 25° C.—USES: Perfumery & toilet soaps; odor resembles that of hawthorn, but the aldehyde must be mixed w. other odorous substcs to yield an agreeable odor; also as test f. picrotoxin (Minovici), & fusel oil & methyl lactate (Takahashi).

Aldehyde *iso*-Butylic

Isobutyryl Aldehyde.—(CH₃)₂CH.CHO = 72.08.—Fr. isobutyl A. by CrO₃.—Transp. colorl., h'ly refract., pung. liq.—MISC.: A.; sol. 9 W.—BOIL.: 61° C.—SP. GR.: 0.797 at 15° C.

Aldehyde Cinnamic Merck

Cinnamaldehyde; Cinnamal; Cinnamyl Aldehyde.—C₆H₅.CH:CH.CHO = 132.11.—Fr. oils of Ceylon & Chinese cinnamon; also synthetically.—Yellowish oil; cinnamon odor.—MISC.: A., C., E.—SP. GR.: 1.108 at 25° C.—BOIL.: 128°–130° C. at 20 mm. & at abt 245° C. at atmosph., press., w. part. decomp'n. Decomp'd on distil.—MELT.: –7.5 C.—USES: *Intern.* & *extern.*, as of oil cinnamon.—*Techn.*, manuf. perfumes & flavors.—DOSE.: 0.06–0.12 cc. (1–2 M); aver. dose 0.05 cc. (¾ M).—CAUT.: Keep well stoppered.

ALDEHYDE, CINNAMYL—see Aldehyde Cinnamic

ALDEHYDE *p*-CUMINIC—see Cuminol

Aldehyde Ethylic—95%

Aldehyde; Ethylaldehyde; Acetic Aldehyde; Acetaldehyde.— $\text{CH}_3\text{CHO} = 44.03$.—Fr. A. by oxid'n w. CrO_3 .—Colorl., mobile, inflam. liq.; characteristic pung., suffoc. odor.—Sp. Gr.: 0.782–0.790 at 15° C.—Misc.: W., A., E., in all proport.—Boil.: 21° C. (B.P.C.).—USES: *Medic.*, as antisept. inhal. in catarrh & ozena (1 part 15% alcoh. solut. + 960 parts W.).—*Techn.*, manuf. paraldehyde; also in syntheses; in tests f. *m* & *p*-phenylenediamine (Cuniasse), tyrosin (Denigès), & urochrom (Garrod).

do. Merck—Highly Concentr. (abt 80%)

do. Merck—Concentr. (abt 60%)

USES: Manuf. paraldehyde, etc., & aniline dyes; silvering mirrors; develop'g photographs; hardening gelatin films; manuf. synthetic rubber, intermediates.

ALDEHYDE, FORMIC—see Formaldehyde

ALDEHYDE, FURFURANECARBOXYLIC—see Furfural

ALDEHYDE, GLYCOSALICYLIC—see Helicin

ALDEHYDE, HEPTYL—see Aldehyde Oenanthic

ALDEHYDE, ISOBUTYLIC, or ISOBUTYRYL—see Aldehyde *iso*-Butylic

ALDEHYDE *p*-ISOPROPYLBENZOIC—see Cuminol

ALDEHYDE, ISOVALERIC—see Aldehyde *iso*-Valeric

ALDEHYDE, METHYL—see Formaldehyde

Aldehyde Oenanthic

Oenanthal; Heptyl Aldehyde; Oenanthaldehyde.— $\text{CH}_3(\text{CH}_2)_5\text{CHO} = 114.15$.—Fr. castor oil by fract. dist'n. H'ly refract. colorl. liq.; arom. odor.—Sol.: Eas.: A., E., sltly W.—Sp. Gr.: 0.822 at 15° C.—Boil.: 155° C.—USES: Manuf. heptylic alcohol; in organic synthesis.

ALDEHYDE, PIPERONYL—see Heliotropin

ALDEHYDE, PROPIONIC, or PROPYL—see Aldehyde Propylic

Aldehyde Propylic

Propionic, or Propyl, Aldehyde; Propanal.— $\text{CH}_3\text{CH}_2\text{CHO} = 58.06$.—Fr. *n*-propyl A. by oxid'n.—Colorl. liq. w. suffoc. odor.—Misc.: W.—Boil.: 49° C.—Sp. Gr.: 0.807 at 15° C.—USES: Organic synthesis.

ALDEHYDE, PYROMUCIC—see Furfural

Aldehyde Salicylic Merck

Salicyl Aldehyde; Acid Salicylous; Orthoxybenzaldehyde; 2. Phenolmethylal.— $\text{C}_6\text{H}_4\text{OH.CO.H} = 122.08$.—Fr. phenol by heat. w. KOH & CHCl_3 .—Clear, colorl. to yellowish, oily liq.; bitter-almond-oil odor.—Sol.: A., E., in all prop.; sltly W.—Boil.: 197° C.—Sp. Gr.: 1.170–1.173 at 15° C.—USES: *Intern.*, in dropsy.—*Extern.*, as antisept. & disinf.—*Techn.*, in perfumery; as disinfect. in 0.1%–

0.25% solut.; test f. acetone (Frommer), & fusel oil (Komarowsky; Takahashi).—DOSE: 20 drops of 10% hydro-alcoh. solut.

Aldehyde *iso*-Valeric

Valeral; Isovaleral; Isovaleric Aldehyde.— $(\text{CH}_3)_2\text{CH.CH}_2\text{CHO} = 86.11$.—Fr. amyl A. by oxid'n, or fr. dist'n of isovalerates.—Colorl. liq.; pung., apple-like odor.—Misc.: A., E.—Boil.: 92° C.—Sp. Gr.: 0.804 at 15° C.—USES: Artif. flavors & perfumes.

ALDER, AMERICAN } see *Alnus Serrulata*
ALDER, BLACK }

ALDER, BUCKTHORN (EUROPEAN)—see *Frangula*

ALDER, COMMON—see *Alnus Serrulata*

ALDER DOGWOOD—see *Frangula*

ALDER, RED }

ALDER, SMOOTH } see *Alnus Serrulata*

ALDER, TAG }

ALDER, STRIPED or SPOTTED—see *Hamamelis*

ALDOL—see Acetaldol

ALDOXIM—see Acetaldoxim

ALEPPO-GALLS—see *Nutgall*

Aletris

Powd. concentration fr. root *Aletris farinosa* (Star Grass).—Dark-brown intens. bitter powd.—Sol.: A.—ACTION: Tonic; Cath.; Emetic.—USES: Colic, dropsy, & chronic rheumat.—DOSE: 0.06–0.2 Gm. (1–3 grn.) p.d.

Aletris—N.F. V; B.P.C.

Star Grass; Starwort; False Unicorn Root; Blazing Star; Colic Root.—Rhizome of *Aletris farinosa*, L., *Liliacæ* (*Aletrioidæ*).—HABIT.: Eastern U. S.; Ontario.—CONSTIT.: Starch; bitter principle.—ACTION: Tonic; Diuret.; Vermif.; Lax.; Emet.—USES: Amenor.; dysmenor.; leucorrh.; dropsy, colic, rheumat., etc.—DOSE: 0.3–0.6 Gm. (5–10 grn.) in infus., decoct., or tinct. as tonic; aver. dose 2 Gm. (30 grn.)—Alcoh. extr. 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.)—Fl'extr. 2–4 cc. (30–60 M).

Aleudrin

a-a-Dichlorisopropylalcohol Carbamate.— $\text{CH}_2\text{Cl.CH.OCONH}_2\text{CH}_2\text{Cl} = 172.00$.—Wh., odorl. cryst.—Sol.: Eas. A., B., C., E., G., acetone, & oils; diffc. cold W.—MELT.: 82° C.—ACTION: Hypnot.; Sed.; Analg.—DOSE: 0.5–1 Gm. (8–15 grn.).

Aleuronat Merck

Aleuronat flour is a plant albumin, used as a nutrient.—Yellowish-wh., tastel. powd.—USES: Manuf. of bread f. diabetics; also in surgery, because of its chemotactic action on leucocytes, f. filling spaces where the continuity of tissue is broken, & f. effecting union of adjacent tissues.

ALGAROTH POWDER—see Antimony Oxychloride

ALGINOID IRON—see Algiron

Algiron

Alginoid Iron; Iron Alginate.— $C_{76}H_{77}N_2O_{22}Fe_3$ = 1537.53.—Fr. sod. alginate & $FeCl_3$.—Brown, tastel. powd.; abt 11% Fe.—ACTION: Hematinic.—DOSE: 0.2–1 Gm. (3–15 grn.).—Decomp. in intestines.

Alival

3.Iodo-1.2.dihydroxypropane.— $CH_2I.CHOH.CH_2OH$ = 201.99.—Colorl., alm. odorl. cryst.; 62.8% I.—SOL.: Eas. W., A.—MELT.: Abt 49° C.—USES: Inst. of iodides, intern., extern., or subcut.—DOSE: 1 cc. (15 M) conc. solut. (2:1) p.d. intramuscularly.

Alizarin Merck—Dry

Orthodihydroxyanthraquinone; α - β -Dioxyanthraquinone.— $C_{14}H_8(O)_2.C_6H_2(OH)_2$ = 240.13.—Fr. anthracene.—Brownish-yellow or orange red cryst.—SOL.: Moderately in A., E. w. yellow, & in alkalies w. bluish-violet, color.; eas. warm methyl A., B., CS_2 .—MELT.: Abt 289° C.—BOIL.: 430° C.—Sublimes as orange need.—USES: In dyeing wool & silk, & in microscopy; toning pictures, also as test f. Al (Attack), alum (Borghesio), milk (Morres), & aragonit (Thuggt).

do. Merck—Paste

Prep'n cont'g 20% alizarin.—SOL.: Solut. Na_2CO_3 .—USES: Dye. With metal oxides (e.g. of Al) it yields colored lakes, hence its applic. in dyeing & printing calicoes.

do. —Solution

1% alcol. solut. alizarin paste.—USES: Determin. keeping qualities of milk (Alizarol test accord to Morres).

ALIZARIN CARMINE—see Sodium Alizarinsulphonate

ALIZARIN, DESOXY—see Anthrarobin

ALIZARIN GREEN—see Coerulein

ALIZARIN, LEUCO—see Anthrarobin

ALIZARIN RED S—see Sodium Alizarinsulphonate

Alizarin S—Solution

1% solut. Alizarin S (Alizarin Blue, Soluble, the $NaHSO_3$ comp'd of dioxyanthraquinone- α -quinoline, $C_{17}H_{11}NO_{10}S_2Na_2$) in physiological salt solut.—USES: Staining cell nuclei & cytoplasm blue.

ALIZARIN YELLOW C 100%—see Gallacetophenone

ALIZARIN YELLOW GG—see Sodium *m*-Nitrobenzeneazosalicylate

ALIZARIN YELLOW R—see Sodium *p*-Nitrobenzeneazosalicylate

Alkali Blue B (& 6 B)

These are commercial varieties of blue dyes occur'g in the form of a blue powd. us'y sol. in cold or hot W., & consist'g of sodium triphenyl-pararosanilinemonosulphonate, or of mixt. of the sodium salt & the free acid.—USES: Dyeing wool & silk blue.—Alkali Blue 6 B is also used in alcol. solut. as an indic. (acids = blue; alkalies = red), & partic. f. v. dark oils inst. of ph'thalein.

Alkanet—B.P.C.

Alkanna; Orcanette; Dyer's Alkanet; Anchusa.—Root of Alkanna (Anchusa) tinctoria, Tausch, Boraginaceae.—HABIT.: Mediterranean region; Hungary; Western Asia.—CONSTIT.: Alkanin; tannin.—ACTION: Astring.—USES: *Techn.*, in dyeing; also f. coloring oils a bright red.—The coloring principle is solub. in A., B., E., & oils, & is used for coloring oils, fats, etc. (See Extract Alkanet).

ALKANET, GARDEN—see Anchusa

ALKANNA—see Alkanet

ALKANNIN—see Extract Alkanet

Alkannin Paper

Anchusin Paper; Boettger's Paper.—Wh. paper impregnated w. a 1% alcol. tinct. alkanet root & dried.—USES: Indicator (alkalies = green or blue; acids = red).—NOTE: A blue paper can be made fr. the red paper by treat'g the latter w. a 1% Na_2CO_3 solut. & dry'g; such a paper acts abt like litmus paper.

Alkekengi—Fr. Cod.

Winter Cherry; Strawberry Tomato; Bladder Herb.—Fruit (berry) of Physalis Alkekengi, L., Solanaceae.—HABIT.: Mediterranean eastward to Japan.—CONSTIT.: Physalin, citric acid; sugar.—ACTION: Diur., Febrif.; Antipodagr.; Aperient.—DOSE: 5–10 berries.—Alcoh. extr., 0.3–0.5 Gm. (5–8 grn.).

ALLANITE—see Orthite

Allantoin Merck

Glyoxyldiureid.— $CO.(NH)_2.CO.CH.NH.CO.NH_2$ = 158.10.—Fr. uric acid by oxid'n w. $KMnO_4$.—Wh. cryst. powd.; decomp'd by heat.—SOL.: Eas. hot W., hot A., & in NaOH solut.; (260 W., 2360 A. [90%], 1700 A. [80%], 5000 absol. A. (M.-W.)).—MELT.: 235° C. (B.P.C.).—ACTION: As cell proliferant.—USES: *Intern.*, gastralgia, gastric & duodenal ulcers.—*Extern.*, on bandages in 0.3%–0.4% aqu. solut. for ulcers, wounds, boils, burns, etc.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.) (B.P.C.); 15–30 cc. ($\frac{1}{2}$ –1 fl. oz.) of 0.3%–0.4% solut. 3–4 t.p.d. (M.-W.).

Allergens

This is the general name applied to four classes of preparations, viz.: (1) Animal Epidermal Extracts, in form of powder represent'g the alkali-soluble protein fr. the hair & epidermis of animals or fr. feathers of fowl, & used f. the diagnosis of asthma or perennial rhinitis; (2) Biologically Reactive Food Proteins, in form of powders represent'g the protein fr. a v. large number of foods & intended f. determ'g susceptibility to various foods; (3) Bacterial Extracts, protein extracted fr. various bacterial cells, and used cutaneously f. the diagnosis of anaphylaxis to the metabolic products from specific bacteria; and (4) Pollen Protein, powders consist'g of the NaCl-soluble protein of the isolated pollen fr. various species of plants. None of the Allergens are intended for therapeutic treatment, but only f. diagnostic purposes.

ALLIUM—see Garlic

Allonal

Comp'd of amidopyrine & isopropylpropenylbarbituric acid.—**ACTION:** Analgesic; Hypnotic.—**USES:** Nervous insomnia, neuritis, tabetic pains, alcoholism; insomnia due to pain, sciatica, intercostal neuralgia, morphinism, etc.—**DOSE:** As sedat. or simple hypnotic, 0.15–0.6 Gm. ($2\frac{1}{2}$ –10 grn.) per day; as analgesic, hypnotic, 0.3–0.5 Gm. (5–8 grn.).

ALLOPHANAMIDE, or ALLOPHANICACIDAMIDE—see Biuret

ALLOTROPIC PHOSPHORUS—see Phosphorus, Amorphous

Alloxan Merck

Mesoxalylurea; "Erythric Acid".—CO. $(\text{NH}_2\text{CO})_2\text{CO} + \text{H}_2\text{O} = 160.07$.—Fr. uric acid by HNO_3 .—Colorl. cryst.—**SOL.:** Eas. W., A. Aqu. solut. colorl., but imparts a fine pink color to the skin, hence at one time used as cosmetic like rouge.—**Decomp.** abt 170° C.—**USES:** As test f. ferrous oxide (Denigès), albumin (Krasser), & lecithin (Orlow).—**CAUT.:** Keep in a glass-stop. bot. (prone to decomp. on exposure).

Alloxantin

Uroxin.— $\text{C}_8\text{H}_4\text{N}_4\text{O}_7 + 3\text{H}_2\text{O} = 322.19$.—Fr. uric acid by dil. HNO_3 .—Wh. cryst. powd.; on expos. to air takes up NH_3 & becomes red.—**SOL.:** Diffic. cold, more eas. warm, W.

ALLSPICE—see Pimenta

ALLYL ALCOHOL—see Alcohol Allylic

Allyl Bromide Merck

Monobrompropylene. — $\text{CH}_2\text{:CH.CH}_2\text{Br} = 120.98$.—Fr. allyl A. & HBr.—Colorl. to yellowish liq.; unpleas., pung. odor.—**SOL.:** A., C., E., CS_2 , CCl_4 , petrol. E.; insol. W.—**BOIL.:** 70° C.—**SP. GR.:** 1.436 at 15° C.—**USES:** Techn., manuf. synthetic perfumes.

Allyl Chloride Merck

$\text{CH}_2\text{:CH.CH}_2\text{Cl} = 76.52$.—Fr. allyl A. & conc. HCl by heat.—Colorl. liq.—**SOL.:** Absol. A., C., E., petrol. E., CCl_4 ; insol. W.—**SP. GR.:** 0.938 at 15° C.—**BOIL.:** 45° C.

Allyl Iodide Merck

$\text{CH}_2\text{:CH.CH}_2\text{I} = 167.98$.—Fr. G. by heat. w. I & P.—Yellowish liq.; darkens on expos. to light & air, w. liberation of I; unpleas. penetr. odor.—**SOL.:** A., C., E.; insol. W.—**SP. GR.:** 1.825–1.835 at 15° C.—**BOIL.:** Abt 101° C.—**USES:** Chiefly in manuf. allyl compds.

ALLYL ISOSULPHOCYANIDE, or ISOTHIOCYANATE—see Oil Mustard, Artificial

Allyl Oxide

Diallyl Oxide.— $(\text{C}_3\text{H}_5)_2\text{O} = 98.11$.—Fr. allyl iodide & sod. allyl alcoholate or HgO .—Colorl. liq.; radish-like odor.—**Insol.** W.—**SP. GR.:** Abt 0.804.—**BOIL.:** Abt 94° C.

Allyl Sulphide Merck

Diallyl Sulphide; Thioallylic Ether; "Oil of Garlic".— $(\text{CH}_2\text{:CH.CH}_2)_2\text{S} = 114.17$.—Fr. al-

lyl iodide & alcoholic K_2S .—Colorl. to sltly yellowish liq.; garlic odor.—**SOL.:** A., C., E., CCl_4 ; insol. W.—**BOIL.:** Abt 138° C.—**SP. GR.:** 0.890–0.900 at 15° C.—**ACTION:** Antidiar.; Stomachic; Nerv.—**USES:** Cholera, tuberc., local tuberc. lesions, indigest., hyst., &c.—**DOSE:** 0.06–0.12 cc. (1–2 M) well diluted & flav. w. pepperm. oil. In tuberc., inject. into supraplasm fossa of 1–2 cc. (15–30 M) of a 1:200 solut. of allyl sulphide in sterile olive oil; in cholera, intern., 0.02–0.03 cc. ($\frac{1}{2}$ – $\frac{1}{2}$ M) ev. half hr, & intest. irrigat. of 1:1000 aqu. solut. warmed to 36° C., 3 t.p.d.

ALLYL SULPHOCARBAMIDE, or SULPHOUREA, or THIOUREA—see Thiosinamine

Allyl Tribromide

Tribromhydrin; 1.2.3.Tribromopropane; Tribrompropylene; Propargyl Tribromide.— $\text{CH}_2\text{Br.CHBr.CH}_2\text{Br} = 280.82$.—Fr. allyl iodide by Br.—Colorl. liq.; cryst. mass when cooled.—**SOL.:** A., E.—**MELT.:** Abt 20° C.—**BOIL.:** 220° C.—**SP. GR.:** 2.430 at 15° C.—**ACTION:** Sed.; Antispasm.—**USES:** Hyst., asthma, whoop-cough.—**DOSE:** 0.3–0.6 cc. (5–10 M) 2 or 3 t.p.d.—**INJ.:** 0.12–0.2 cc. (2 or 3 M) in 1 cc. (15 M) ether.

Allylamine

3.Aminopropylene.— $\text{CH}_2\text{:CH.CH}_2\text{NH}_2 = 57.08$.—Fr. volat. allyl mustard oil by HCl.—Colorl. liq.; strong ammon. odor, causing sneezing & tears.—**SOL.:** A., W., E., C.—**BOIL.:** 53° C.—**SP. GR.:** 0.768 at 15° C.

ALLYLDIMETHOXYMETHYLENEDIOXYBENZENE—see Apiol

p-ALLYLPHENYLMETHYLIC ESTER—see Anethol

ALLYLVERATROL—see Methyleugenol

Almén's Solution—Test for Albumin

A 2% solut. of tannin in dil. alcohol.—On mix. the solut. w. 6 times its vol. of urine, a turb'ity or ppt. forms if albumin present.

do. —Test for Blood

Almén-Schoenbein's Solution.—Mixt. of eq. vols. fresh tinct. guaiac & ozonized oil turpentine (ozonized by long exposure to air).—Shake solution vigorously & then allow liquid to be tested to run in carefully & form a separate layer. If blood present, a blue ring develops, & on shak'g the entire mixt. becomes blue.

do. —Test for Glucose (Dextrose)

Dissolve 10 Gm. bism. subnitrate & 20 Gm. Rochelle salt in 500 Gm. solut. KOH (Sp. Gr. 1.34=35% KOH).—On boil. solut. w. urine, a black ppt. forms if glucose present.

Almond, Bitter—B.P.; Fr. Cod.

Ripe seed of *Prunus Amygdalus* Stokes (*Amygdalus communis*, L.), var. amara, Baillon, Rosaceæ (*Amygdaleæ*).—**HABIT.:** Italy, Spain, & Southern France.—**CONSTIT.:** Fixed oil 36%–50%; amygdalin, $\text{C}_{20}\text{H}_{27}\text{NO}_{11}$, abt 3.3%; proteids; emulsin (synaptase); sugar.—**USES:** Prepar. amygdalin, essential & expressed oils

almond, & bitter-almond water; as flavor for foods & candies; in perfumery, & in manuf. of liqueurs.

Almond, Sweet—U.S.P. IX; B.P.; Fr. Cod.

Jordan Almond.—Ripe seed of *Prunus Amygdalus dulcis*, D.C.; (*P. Amygdalus*, Stokes, var. *dulcis*, Baillon, B.P.), Rosaceæ (*Amygdaleæ*).—HABIT.: Italy, Spain, & Southern France.—CONSTIT.: Fixed oil (abt 50%); proteids; emulsin; sugar.—USES: In perfumery & confectionery; prep. expressed oil almond, almond milk, almond meal, etc.

Alnuin

Powd. concentr'n fr. bark *Alnus serrulata*, Willd. (American Alder).—Brown powd.—SOL.: A.—ACTION: Antipyr.; Antisep.; Astring.—USES: By Eclectics in intermit. fever, & as hemost.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

Alnus Serrulata

Smooth-, American-, Tag-, Red-, Black-, or Common, Alder.—Bark of *Alnus serrulata*, Willd., Betulaceæ.—HABIT.: U.S.—CONSTIT.: Resin; oils; tannin; alnuin (?).—ACTION: Alter.; Emet.; Astring.—USES: Scrofula & o. skin dis.; hematuria; marasmus in children; indigestion & dyspepsia.—DOSE: Fl'extr. 2–4 cc. (30–60 M).—Infus. (1:16) 60 cc. (2 fl.oz.).

ALOCAL=Aluminum Hydroxide, Colloidal

Aloe—U.S.P. X; B.P.; Fr. Cod.

Inspis. juice of lvs of Aloe Perryi, Baker (Socotrine aloe), A. vera, L. (Curaçao, or Barbadoes aloe), or A. ferox, Miller (Cape aloe), Liliaceæ.—HABIT.: *Socotrine*, Island of Socotra (in straits of Bab-el-Mandeb); *Curaçao*, Dutch West Indies; *Cape*, Southern Africa.—CONSTIT.: *Socotrine*, 7.5%–10% aloin (socaloin); *Curaçao*, 18%–25% aloin (curaçaloin); *Cape*, 4.5%–9% aloin (capaloin); all the aloes moreover cont. resin, emodin (C₈H₁₀O₆), & volat. oil.—SOL.: *Socotrine*, not less than 50% in W.; *Curaçao* & *Cape*, not less than 60% in W.—ACTION: Bitter Tonic; Lax.; Purg.; Emmen.—USES: Hemorrhoids, constip., amenorrh., jaundice, & chlorosis.—DOSES: *Tonic*, 0.03–0.12 Gm. (½–2 grn.); *lax.*, 0.12–0.6 Gm. (2–10 grn.); *aver. dose* 0.25 Gm. (4 grn.); *cath.*, 0.6–1.3 Gm. (10–20 grn.).—Aqu. extr. (B.P.; N.F. IV), 0.06–0.25 Gm. (1–4 grn.).—INCOMP.: Mercury nitrate; silver nitrate.

Aloe, Purified—U.S.P. VIII

From com'l Socotrine aloe.—Dull-brown or reddish-brown, brittle pieces; charact. arom. odor of Socotrine aloe, & bitter taste.—SOL.: Alm. entirely in A.; stlty W.—ACTION: Cath.; Emmen.; Lax.—USES: Usually w. o. drugs; acts mostly on lower bowel.—DOSES: 0.03–0.6 Gm. (½–10 grn.).

ALOE-PURPLE—see Acid Aloetic

Aloin Merck—U.S.P. X

Lemon-yellow to dark-yellow cryst. powd.; stl odor of aloe; bitter taste; darkens on expos. to air & light.—SOL.: W., A., acetone, NH₄OH, & alkali hydroxide soluts; stlty in E., U.S.P.; (alm. entirely in 130 W., 18 A. [90%], 50 ace-

tone, & v. spar. in B., C., E., B.P.; also sol. in formamide).—ACTION: Cath.—USES: Chronic constip., espec. when complicated w. hemorrhoids.—Chem. anal., as test f. blood (Rossel; Schaer).—DOSE: 0.015–0.12 Gm. (¼–2 grn.); *aver.*, 0.015 Gm. (¼ grn.).—INJ.: 0.05 Gm. (¾ grn.) diss. in formamide.—MAX. D.: 0.25 Gm. (4 grn.) single; 0.6 Gm. (10 grn.) p. day.—VETER. MED., cathart. f. *dogs*, 0.05–0.2 Gm. (¾–3 grn.) intern., or 0.05 Gm. (¾ grn.) in formamide subcut.—INCOMP.: Alkali hydroxides, FeCl₃, tannin.

ALPHA-ACETNAPHTHALID—see α -Acetnaphthalid

ALPHA-AMINONAPHTHALENE—see α -Naphthylamine

ALPHABENZYLIDIOXIME—see α -Diphenylglyoxime

ALPHABROMISOVALERYLPARAPHENETIDIN—see Phenoval

ALPHACEREBRIN—see Cerebrum

ALPHADIAMINOTOLUENE (or, -OL)—see *m*-Toluylenediamine

ALPHADIBROMANTHRACENE—see α -Dibromanthracene

ALPHADIBROMNAPHTHALENE—see α -Dibromnaphthalene

ALPHADICHLORETHANE—see Ethylidene Chloride

ALPHADICHLORNAPHTHALENE—see Dichloronaphthalene

ALPHADIMETHYLGLYOXIME—see Dimethylglyoxime

ALPHADINITRONAPHTHALENE—see α -Dinitronaphthalene

ALPHADINITROPHENOL—see α -Dinitrophenol

ALPHAHEXACHLOROCYCLOHEXENE—see Benzene Hexachloride

Alpha-Lobeline

The HCl salt of a recently discovered Lobelia alkaloid.—C₂₁H₂₃NO₂.HCl = 357.77.—Colorl. needles.—SOL.: Eas. W.—MELT.: 183° C.—ACTION: Respiratory Stimulant.—USES: Respiratory collapse in disease & fr. accidents, asphyxia due to narcosis, gases, etc.—DOSE: 0.015 Gm. (¼ grn.) subcut. or intramusc.; 0.0045–0.009 Gm. (1/13–1/6 grn.) intraven.

ALPHAMETHYLPYRIDINE—see α -Picoline

ALPHAMETHYLQUINOLINE—see Quinaldine

ALPHAMONOBROMISOVALERYLUREA—see Brom-ural

ALPHAMONOCHLORNAPHTHALENE—see α -Chlor-naphthalene

ALPHAMONOIODOISOVALERYLUREA—see Iodival

ALPHANAPHTHALENE-AZQ-ALPHANAPHTHOL—see Sudan Brown

Alphanaphthol Merck—Recryst.

C₁₀H₇.OH=144.11.—Constit. of coal tar; also by fus. α -naphthalenesulphonic acid w. KOH.—Colorl. prisms or powd.; phenolic odor; disagree. burning taste.—SOL.: Eas. A., B., C., E.; stlty in hot, alm. insol. cold, W.—MELT.: 97° C.—

BOIL.: Abt 280° C.—ACTION: Antisep. (said to be 1½ times more powerful than betanaphthol); Antiferment.—USES: Diarr., dysent., cholera, typhoid, gout, oxalurea, hepatic cirrhosis, influenza, measles, smallpox, scarlet fever, & summer complaints. 0.1–0.25:1000 prevents development of the spores of tubercle bacilli.—DOSE: *Intern.*, as antiferment, 2 Gm. (30 grn.) in 30 cc. (1 fl. oz.) castor oil, given in two portions w. 1 hour interval; in typhoid, 3–6 Gm. (45–90 grn.) p.d.—*Extern.*, in erysip., smallpox, scarlet fever, & tuberculous laryngitis, in 10%–20% olive oil solut.—*Techn.*, in microscopy; manuf. dyes, intermediates, synthetic perfumes.

ALPHANAPHTHOL BLUE—see Indophenol

ALPHANAPHTHOL ORANGE—see Tropaeoline O O O No. 1

ALPHANAPHTHOL SALICYLATE—see Alphol

ALPHANAPHTHOLBENZENE—see α -Naphtholbenzene

ALPHANAPHTHOLPHTHALEIN—see α -Naphtholphthalein

ALPHANAPHTHOQUINONE—see α -Naphthoquinone

ALPHANAPHTHYLAMINE—see α -Naphthylamine

ALPHANAPHTHYLCARBONIMIDE—see α -Naphthylisocyanate

ALPHANITROSOBETANAPHTHOL—see Nitroso- β -Naphthol

ALPHAPICOLINE—see α -Picoline

ALPHAPROPENYL CHLORHYDRIN—see α -Monochlorhydrin

ALPHAQUINIDINE—see Cinchonidine

ALPHATRIPHENYLGUANIDINE—see α -Triphenylguanidine

ALPHATRUXILLIC ESTER, or ETHER—see Ethyl α -Truxillate

Alphol

Alphanaphthol Salicylate. — $C_6H_4(OH)COO-C_{10}H_7 = 264.18$.—Fr. salicylic acid & alphanaphthol.—Reddish-wh., cryst. powd.—SOL.: Eas. A., E., fatty oils; insol. W.—MELT.: 83° C.—ACTION: *Intern.* Antisep.; Antirheum.—USES: Gonorr., cystitis, summer dis. of children, typh. fever; rheumat. affec.—DOSE: 0.5–2 Gm. (8–30 grn.); children, 0.06–1 Gm. (1–15 grn.) accord. to age, 3 t.p.d., in wafers or powd.

Alphozene

Succinyl Peroxide.— $(COOH.CH_2.CH_2CO)_2O_2 = 234.12$.—Wh., odorl., cryst. powd.—SOL.: 30 W.; mod. in A., acetone & ethyl acetate; spar. sol. in E.; insol. B. & C.—MELT.: 128° C. w. decomp.—ACTION: Germicide; Antisep.—USES: *Intern.*, typhoid, infect. diarrh., abnorm. ferment. intestinal processes.—*Extern.*, wounds, ulcers, tonsillitis, leucorrh., etc., in 1:1000 solut.—DOSE: 0.06–0.3 Gm. (1–5 grn.).—CAUT.: Keep in dark, well-stop. bot.

ALSO = Aluminum Acetotartrate

Alstonia—B.P.

Australian Fever Bark; Australian Native Quinine; Fever Bark; Dita, or Bitter, Bark.—Bark of *Alstonia scholaris*, R. Br., & *A. constricta*, F. Muell., Apocynaceae.—HABIT.: Australia (Queensland & New South Wales).—CONSTIT.: Of *A. scholaris*; Ditamine; ditaine (echitamine); echitenine. Of *A. constricta*; Alstonine (chlorogenine); porphyrine; alstonidine; porphyrosine.—ACTION: Inner bark is Antiperiodic; outer bark Antirheumatic.—USES: Malarial fever.—DOSE: 0.12–0.5 Gm. (2–8 grn.) as febrif.; 0.06 Gm. (1 grn.) as tonic.—Infus. (1:20), 15–30 cc. (½–1 fl. oz.).—Tr. (1:8), 2–4 cc. (30–60 M).

ALSTONINE—see Chlorogenine

Althea—U.S.P. X; B.P.C.; Fr. Cod.

Marshmallow.—Dried root of *Althaea officinalis*, L., Malvaceae, deprived of brown, corky layer, & dried.—HABIT.: Europe; Western & Northern Asia; natur. in Eastern U. S.—CONSTIT.: Asparagin; mucilage (25%–35%); sugar; pectin; starch.—ACTION: Demulc.; Emoll.—USES: Coughs, colds, & in bronch. affect. & inflam. condit. of urinary passages.—DOSE: 2–4 Gm. (30–60 grn.).

do. Leaves—N.F. V

Dried lvs of *Althaea officinalis*, L., Malvaceae.—HABIT.: See *Althaea*.—CONSTIT.: Mucilage.—ACTION: Emollient; Demulc.—USES: Chiefly as cataplasms.—DOSE: 2–4 Gm. (30–60 grn.); aver. dose 2 Gm. (30 grn.).

ALTHEIN—see *l*-Asparagin

ALUM—see Aluminum & Potassium Sulphate

ALUM, AMMONIOFERRIC—see Iron & Ammonium Sulphate, Ferric

ALUM, AMMONIUM—see Aluminum & Ammonium Sulphate

ALUM, CAKE—see Aluminum Sulphate

ALUM, CESIUM—see Aluminum & Cesium Sulphate

ALUM, CESIUM-RUBIDIUM—see Aluminum & Cesium & Rubidium Sulphate

ALUM, CHROME—see Chromium & Potassium Sulphate

ALUM, CHROME AMMONIUM—see Chromium & Ammonium Sulphate

ALUM, CUBE

ALUM FLOUR } see Aluminum & Potassium
ALUM MEAL } Sulphate

ALUM, POTASSIUM }

ALUM, PATENT—see Aluminum Sulphate

ALUM ROOT—see Geranium

ALUM, RUBIDIUM—see Aluminum & Rubidium Sulphate

ALUM, SODIUM—see Aluminum & Sodium Sulphate

ALUM, ZINC—see Aluminum & Zinc Sulphate

ALUMINA—see Aluminum Oxide

ALUMINA, HYDRATED—see Aluminum Hydroxide

Aluminite—Mineral

Alunite; Alumstone.—OCCUR.: Western U. S.; Europe. — COMPOS.: $K(SO_4)_2(AlO)_3 \cdot 3H_2O$. — CRYST. SYST.: Hexag. rhomboh.—Dull when massive, vitr. when cryst.—COLOR: Wh. w. faint flesh tint, sometimes grayish.—STREAK: Wh.—FRACT.: Conch. when massive, uneven when cryst.—HARDN.: 3.5–4.—SP. GR.: 2.58–2.752.—USES: Prep'g Roman alum.

Aluminum Merck—Fine or Coarse Powd.; also Granular, Thick or Thin Sheets; Thick Wire & Turnings

Al=27.00; disc. by Wöhler (1827).—Obt'd fr. cryolite (double sodium & aluminum fluoride), or bauxite (native aluminum hydroxide) in electric furnace.—Tin-wh., malleable, ductile metal w. somewh. bluish tint, & capable of taking brill. polish which is retained in dry air; in moist air oxidizes grad'ly superficially.—SOL.: HCl, dil. H_2SO_4 , & soluts KOH & NaOH, w. evol. of H in ev. case; w. conc. H_2SO_4 , SO_2 evolved; insol. cold or hot dil. or conc. HNO_3 or acetic acid.—MELT.: Abt 700° C.—BOIL.: Abt 2200° C.—SP. GR.: Abt 2.6.—USES: *Techn.*, in form of metal, & as alloys (magnalium, aluminum bronze, etc.) f. utensils, parts of machines, electrical conductors inst. of copper; the coarse powd. is used in aluminothermics (thermit process); the fine powd. as flashlight in photogr., in explosives, fireworks, & in aluminum paints; absorbing occluded gases in manuf. of steel; manuf. chemicals, fire brick; as catalyst in manuf. ammonia; also in testing f. Au (Dauvé), As (Gatehouse), & Hg (Wislicenus); reduc'g ferrous soluts; coagulat'g colloidal soluts of As or Sb; ppt'g Cu; reducer in determ'g nitrates in soils.

ALUMINUM ACETATE—see Lenicet

Aluminum Acetate Merck—Basic—C.P.

Aluminum Subacetate. — $Al_2O(C_2H_3O_2)_2 \cdot 4H_2O$ = 260.13.—Wh. powd.—SOL.: Acids; partially in W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.100%
Alkali & Earths.....	1.0%
Iron (Fe).....	0.05%
Other Heavy Metals.....	Traces

do. Merck—Basic—Pure, Powd.

ACTION: Antisep.—USES: *Intern.*, diar. & dysent.—*Extern.*, alone or mixed w. talcum, starch, glycerin, petrolatum, etc., in granulat'g wounds, hyperidrosis, erythemas, eczema, blennorrhea neonator., blepharitis, burns, etc.—DOSE: 0.3–0.6 Gm. (5–10 grn.) 3 t.p.d.

do. Merck—Basic

Mordant Salts; Waterproofing Salts; Printer's Acetate.—USES: *Techn.*, as mordant in dyeing, disinf. by embalmers, water-proofing & fire-proofing fabrics, manuf. lakes.

ALUMINUM ACETATE SOLUTION—see Solution Aluminum Acetate

ALUMINUM ACETATE GLYCEROLATE, or GLYCERITE—see Aluminum Acetoglycerinate

Aluminum Acetoglycerinate

Glycerolate, or Glycerite, of Aluminum Acetate.—Not a definite compd, but a mixt. of aluminum acetate & glycerin, cont'g approx. 27% Al_2O_3 .—Wh. powd.—SOL.: Mineral acids.—ACTION: Antisep.

Aluminum Acetotartrate Merck—Dry

Colorl. cryst. or scales.—SOL.: 1 W., insol. A., E.—ACTION: Energetic non-poison. Antisep. & Astring.—USES: Chiefly in dis. of air passages.—APPL.: In 0.5%–2% soluts as gargle, mouth wash, nasal douche, or wound lotion; or as snuff, w. twice its wt powd. boric acid. Conc. aqu. solut. f. chilbl. & balanitis; 1%–3% solut. used inst. of solut. aluminum acetate; 0.25%–0.5% cold or hot compresses in acute granuloma, conjunctiv., trachoma, scrofulous ophthalmia, ulcers.

do. —Solution—N.F. IV

Colorl. liq. prep. fr. 75 ammonium alum, 30 $Na_2CO_3 \cdot H_2O$, 15 glac. acet. acid, & 13.5 tartaric acid w. W. to 100.—ACTION: Antisep.; Astring.—USES: Skin dis. & as disinf.

Aluminum Arsenate

$Al(AsO_4)$ = 165.96.—Wh. powd.—SOL.: Acids; v. sltly W.

Aluminum Benzoate Merck

$Al(C_7H_5O_2)_3$ = 390.23.—Wh. cryst. powd.—SOL.: v. sltly W.

ALUMINUM BETANAPHTHOLDISULPHONATE — see Alumnol

Aluminum Bifluoride

$AlF_3 + 3HF$ = 144.02.—Wh., cryst. powd.—SOL.: v. sltly W.

Aluminum Borate

$2Al_2O_3 \cdot B_2O_3$ = 273.80.—Wh. gran. powd.; variable compos.; water dissolves out boric acid.—SOL.: Mineral acids.—USES: *Techn.*, in glass industry, coating ceramics, etc.

Aluminum Boroformate

Mixt. of aluminum borate & aluminum formate; abt 38% formic acid.—Wh. cryst.—SOL.: v. diffic. W.—ACTION: Disinf. & Astring., like aluminum acetotartrate.—USES: As gargle in throat dis. of children.

Aluminum Borotannate

Cutal.—Light-brown powd.—SOL.: Dil. tartaric acid; insol. W.—ACTION: Disinf.; Astring.—USES: *Extern.*, skin dis., chiefly.—APPL.: Pure or attenuated, in oint. or as dust.-powd.

Aluminum Borotannotartrate

Cutal Soluble.—Grayish-wh. powd.—SOL.: W.—ACTION: Astring.; Antisep.—USES: *Extern.*, skin dis., burns, sores, gonorr., &c.—APPL.: In oint. & dust.-powd.

Aluminum Borotartrate

Boral.—Wh. powd.; sweet, astring. taste.—SOL.: W.—ACTION: Disinf.; Astring.—USES:

Extern., as powd. in skin dis.; by insufflation or wash (0.5%–1%) in purulent middle ear dis.; as nonirritant oint. (10%) in ecz. of auditory canal; also in inflam. dis. of nose & throat. Wet compresses in ulcer of the leg have proved useless.

Aluminum Bromide

$\text{AlBr}_3 + 6\text{H}_2\text{O} = 374.86$.—Wh. to yellowish, deliquescent. cryst.—*SOL.*: W., A., CS_2 .—*MELT.*: 93° C.—*USES*: Organic synthesis; manuf. dyes.—*CAUT.*: Keep well stoppered.

do. —Anhydrous

$\text{AlBr}_3 = 266.76$.—Wh. to yellowish-red, v. hygroscopic lumps; fume strongly in air.—*SOL.*: W., w. explosive violence.—*BOIL.*: 263° C.—*USES*: In organic chemical synthesis.—*CAUT.*: Keep well stoppered.

Aluminum Carbide

$\text{Al}_4\text{C}_3 = 144.02$.—Fr. aluminum salts w. carbon in electric furnace.—Greenish-gray, pulv. mass; decomp. by water, w. liber. of methane.—*SOL.*: Hot conc. HNO_3 .—*SP. GR.*: 2.36.—*USES*: *Techn.*, generating methane.

Aluminum "Carbonate"

Approx. $\text{Al}_2\text{O}_3 \cdot \text{CO}_2 = 146.01$.—Wh., eas. pulveriz., tastel. lumps.—*ACTION*: Mild Stypt.; Astring.—*USES*: Ocular affect., croup, diarrh., hemoptysis, cutan. erupt., hyperidrosis, &c.

Aluminum Chlorate

$\text{Al}(\text{ClO}_3)_3 + 9\text{H}_2\text{O} = 839.52$; sometimes cont. only $6\text{H}_2\text{O}$.—Fr. aluminum sulphate & KClO_3 (or $\text{Ba}(\text{ClO}_3)_2$).—Colorl. deliq. cryst.—*SOL.*: Eas. W.—*ACTION*: Antiseptic.—*USES*: In dipth. & tuberculosis as a gargle in 0.1%–0.2% solut.

Aluminum Chloride Merck—C.P.—Gran.

$\text{AlCl}_3 + 6\text{H}_2\text{O} = 241.48$.—Wh. or sltly yellowish, alm. odorl., deliquescent. cryst. powd.—*SOL.*: W., A.—*CAUT.*: Keep well stoppered.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.030%
Alkali & Earths	0.20%
Iron (Fe)	0.005%
Other Heavy Metals	0.000%

USES: Chem. synthesis (Friedel-Craft's reaction), & as test f. naphthalene (Schwarz); also as a catalytic agent.

do. Merck—N.F. V.

SOL. Abt 0.5 W., 4 A. at 25° C.; also in G., N.F.V.—*ACTION*: Disinfect.—*USES*: *Intern.*, locomotor ataxia.—*Extern.*, like solut. aluminum acetate on bandages.—*Techn.*, carbonizing wool, preserv. wood, disinfect'g stables, slaughter houses, etc.; refin'g crude oil, dyeing fabrics; manuf. parchment paper, intermediates.—*DOSE*: 0.1–0.6 Gm. ($1\frac{1}{2}$ –10 grn.) 3 t. per day; aver. dose 0.3 Gm. (5 grn.).—*CAUT.*: Keep dry & fr. moist air.

Aluminum Chloride Merck—C.P.—Anhydrous

$\text{AlCl}_3 = 133.38$.—Ordinarily, reddish-yellow to greenish lumps; dazzling wh. pure; fumes in air; strong odor of HCl; unites w. W. w. explosive

violence.—*USES*: Synthesis of organ. comp'ds, accord. to Friedel & Craft.—*CAUT.*: Keep dry.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.010%
Alkali & Earths	0.20%
Iron (Fe)	0.20%
Other Heavy Metals	Traces

CAUT.: Keep dry & fr. moist air.

do. Merck—Anhydrous, Sublimed

Aluminum Citrate

Colorl. to sltly yellowish granules resembl. acacia; compos. variable.—*SOL.*: Hot W.

Aluminum Dichromate

$\text{Al}_2(\text{Cr}_2\text{O}_7)_3 = 702.00$.—Black mass.—*SOL.*: Eas. W.

ALUMINUM DIHODOPARAPHENOLSULPHONATE—see Soziodole-Aluminum

Aluminum Fluoride Merck—C.P.

$\text{AlF}_3 = 84.00$ (cont's a variable quantity aq.).—Wh. powd.—*SOL.*: HCl; insol. W.—*SP. GR.*: 3.1.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Sulphate (SO_3)	0.020%
Iron (Fe)	0.015%
Other Heavy Metals	Traces

USES: *Techn.*, in glass industry, enamels f. pottery & porcelain; preventing side fermentations in alcoholic fermentations.

ALUMINUM GALLATE—see Gallal

ALUMINUM HYDRATE—see Aluminum Hydroxide

Aluminum Hydroxide Merck—C.P.

Aluminum Hydrate; Hydrated Alumina; Argilla; Precipitated Aluminum Oxide; Aluminum Trihydrate.— $\text{Al}(\text{OH})_3 = 78.02$.—Wh., tastel., odorl., amorph. powd. or lumps.—*SOL.*: Hot HCl, H_2SO_4 , soluts of fixed alkali hydroxides; insol. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Sulphate (SO_3)	0.050%
Iron (Fe)	0.01%
Other Heavy Metals	0.00%
Water-Sol. Substcs	0.25%

do. Merck—U.S.P. IX—Pure

Descript. &c.: As preced'g.—*ACTION*: Mild Astring.; Desiccant.—*USES*: *Intern.*, in abnorm. gastric acidity, diarrh., & cholera.—*Extern.*, as dust'g powd. for inflam. affect. of skin, as siccative f. foul & gangrenous wounds, & in weeping exanthemata.—*DOSE*: 0.2–1 Gm. (3–15 grn.) in diarrh. & cholera.

do. Merck—Technical

SOL.: Hot HCl & H_2SO_4 on long boil.; insol. W.—*USES*: With organic dyes to make lakes; as mordant in dyeing; as filtering medium; manuf. glass, fire clay, pottery, printing inks, lubricating compositions, detergents.

Aluminum Hypophosphite

$\text{Al}(\text{PO}_2\text{H}_2)_3 = 222.17$.—Wh. powd.—*SOL.*: Slty W.

Aluminum Iodide

$\text{AlI}_3 = 407.76$.—Fr. Al & I at high temp.—Blackish-brown lumps; fume in moist air, & combine w. W. w. hissing noise w. decomp.—**SOL.**: Alm. compl. in W., A.—**CAUT.**: Keep dry.

Aluminum Lactate

$\text{Al}(\text{C}_3\text{H}_5\text{O}_2)_3 = 294.17$.—Wh. to yellowish, finely gran. powd.—**SOL.**: Eas. W.—**ACTION**: Antisept.—**USES**: *Intern.*, gastro-intest. disinf.—*Extern.*, as bandage f. varicose ulcers in 0.5%–2% solut., f. eczema; as mouth wash f. syphilitics during mercury treatment.

do. —7% Solution

Clear, perf. stable liq.—**ACTION**: Astringent.—**USES**: As of the acetate, in cutan. inflam. & ulcerations, f. irrig. the bladder & urethra, ulcer of leg, etc.—**APPL.**: 0.5%–2% solut. as moist bandage; 1:1000–500 solut. in irrigations.

Aluminum Linoleate

$\text{Al}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3 = 858.77$.—Yellow lumps or powd.; linseed oil odor.—**SOL.**: Alkalies; alm. insol. W.—**USES**: Manuf. lacquers.

ALUMINUM NAPHTHOLSULPHONATE—see Alumnol

Aluminum Nitrate Merck—C.P.—Cryst.

$\text{Al}(\text{NO}_3)_3 + 9\text{H}_2\text{O} = 375.28$.—Colorl., very hygrosc. cryst.—**SOL.**: Eas. W., A.; acetone.—**MELT.**: Abt 75° C.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Sulphate (SO_3)	0.020%
Alkali & Earths	0.200%
Iron (Fe)	0.003%
Zinc (Zn)	0.040%
Other Metals	0.000%

USES: Chem.: manuf. incandescent filaments.—The *technical* grade is used as a mordant in printing fabrics; tanning & finishing leather.

Aluminum Oleate

$\text{Al}(\text{C}_{18}\text{H}_{33}\text{O}_2)_3 + 6\text{H}_2\text{O} = 979.16$.—Wh. to yellowish, gelat. mass.—**SOL.**: Turpentine oil, & alkalies; v. sltly in A., hot E., B.; insol. W.—**ACTION**: Antisep.—**USES**: *Extern.*, skin dis.—*Techn.*, in oil turpentine solut. as lacquer f. metals; as size, waterproofing agent, drier, & for thicken'g lubricating oils.

Aluminum Oxalate

$\text{Al}_2(\text{C}_2\text{O}_4)_3 + \text{H}_2\text{O} = 336.05$.—Wh. powd.—**SOL.**: In hot mineral acids; insol. W., A.—**USES**: Mordant in printing textiles; dyeing cotton.

Aluminum Oxide Merck—C.P.—Ignited

Alumina.— $\text{Al}_2\text{O}_3 = 102.00$.—Wh., amorphous powd.—**INSOL.** W. & acids.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Sulphate (SO_3)	0.070%
Iron (Fe)	0.015%
Other Heavy Metals	0.00%
Loss on Ignition	5%
Water-Sol. Substcs.	Abt 0.75%

USES: *Techn.*, as abrasive, in refractories (crucibles, furnaces, etc.), manuf. dental cements, glass & artificial gems, as filler f. paints & varnishes, manuf. pottery & porcelain, etc.

ALUMINUM OXIDE, PRECIPITATED—see Aluminum Hydroxide

Aluminum Palmitate

$\text{Al}(\text{C}_{16}\text{H}_{31}\text{O}_2)_3 + \text{H}_2\text{O} = 811.00$.—Gran. yellow mass.—**SOL.**: Alkalies, petroleum, & oil turp.; insol. W.—**USES**: Thickening petroleum & lubricants, water-proofing fabrics, & as size.

Aluminum p-Phenolsulphonate

Aluminum Sulphocarbolate.— $\text{Al}(\text{C}_6\text{H}_4\text{HSO}_4)_3 = 546.39$.—Reddish-wh. powd.; weak phenol odor; strongly astring. taste.—**SOL.**: W., A., G.—**ACTION**: Antisep.—**USES**: Inst. of iodof., espec. in cystitis & suppur. sores.

Aluminum Phosphate Merck—C.P.

$\text{Al}(\text{PO}_4) = 122.04$.—Wh. powd.—**SOL.**: Mineral acids, insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.050%
Sulphate (SO_3)	0.40%
Ca & Mg (as Ca)	0.010%
Heavy Metals	Traces
Water-Sol. Substcs.	0.50%

USES: As cement in admixt. w. CaSO_4 & sod. (or potass.) silicate; as flux f. ceramics.

ALUMINUM RHODANIDE—see Aluminum Sulphocyanate

Aluminum Salicylate Merck—Powd.

$\text{Al}_2(\text{C}_6\text{H}_4\text{OHCOO})_6 + 3\text{H}_2\text{O} = 930.53$.—Wh. to sltly reddish powd.—**SOL.**: Eas. in alkalies; insol. W., A.—**ACTION**: Antisep.—**USES**: In nasal & pharyngeal catarrh & ozena by insuffl.

Aluminum Salicylate Ammoniated

Soluble Salumin.— $\text{Al}(\text{C}_6\text{H}_4[\text{ONH}_4]\text{CO}_2)_3 + \text{H}_2\text{O} = 507.34$.—Colorl. or sltly reddish powd.—**SOL.**: 9 W.—**ACTION**: Astring.; Antisep.—**USES**: Inflam. of nose & throat; insufflation; paint w. 20% solut. in equ. parts G. & W.

Aluminum Silicate Merck

Wh. lumps or powd.—**INSOL.** W. & Acids.—**USES**: *Techn.*, in dental cements, glass industry; manuf. semiprecious stones, ceramics; paint filler.

ALUMINUM SILICATE, "SOLUBLE"—see Neutralon

Aluminum Silicofluoride

$\text{Al}_2\text{F}_6 \cdot 3\text{SiF}_4 = 480.30$.—White powd.—**USES**: *Techn.*, in glass industry, in manuf. of enamels & artif. gems.

Aluminum Stearate

$\text{Al}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3 = 877.11$.—Wh. to sltly yellow powd.—**SOL.**: Turpentine oil, petroleum, & alkalies; sltly A.; insol. W.—**USES**: *Techn.*, water proofing fabrics, paint & varnish drier, thickening lubricating oils.

ALUMINUM SUBACETATE—see Aluminum Acetate

Aluminum Sulphate Merck—C.P.—Cryst., Gran., or Powd.

$\text{Al}_2(\text{SO}_4)_3 + 18\text{H}_2\text{O} = 666.47$.—Wh. lustr. cryst., granules, or powd.—SOL.: Abt 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.001%
Free Acid (as H_2SO_4)	0.100%
Alkalies & Earths	0.20%
Ammonium Salts (NH_3)	0.030%
Arsenic (As)	0.00075%
Iron (Fe)	0.010%
Other Heavy Metals	0.000%

USES: Test f. wine coloring (Jacob), catalyst.

do. Merck—N.F. V.—Gran. or Powd.

Wh., odorl. cryst. or powd.; sweetish, astring. taste.—SOL.: 1 W. at 25°C .; more sol. boil. W.; insol. A.—Loses its water of cryst., 48.6%, when grad. heated to abt 200°C .—ACTION: Astring.; Extern. Antisep.; Caustic.—USES: *Intern.*, in diarrh.—*Extern.*, in fetid ulc. & fetid discharges; enlarged tonsils, scrof. & cancerous ulc.; endometr.; gonorrh.; ozena; leucorrhea; syphil.; nasal polypi, &c.—DOSE: 0.12–0.6 Gm. (2–10 grn.).—APPL.: 1%–5% solut.

do. Merck—Technical

Cake Alum; Patent Alum.—USES: Tanning leather, sizing paper, as mordant in dyeing; purifying water; manuf. lakes, aluminum resinate, paper, & wood-pulp.

Aluminum Sulphide Merck

$\text{Al}_2\text{S}_3 = 150.18$.—Yellowish-gray compact lumps; H_2S odor; decomp. in moist air to a gray powd.—MELT.: 1100°C .—USES: Making H_2S gas.

ALUMINUM SULPHOCARBOLATE—see Aluminum *p*-Phenolsulphonate

Aluminum Sulphocyanate

Aluminum Sulphocyanide; Aluminum Rhodanide.—Approx. $\text{Al}(\text{CNS})_3 = 201.22$.—Yellowish powd.—SOL.: v. sltly W.—USES: *Techn.*, solut's of basic salts as mktd as mordants in printing alizarine on fabrics; manuf. pottery & porcelain; tanning.—CAUT.: Keep dry & fr. air.

ALUMINUM SULPHOCYANIDE—see Aluminum Sulphocyanate

Aluminum Tannate

Insoluble Tannal.— $\text{Al}(\text{OH})(\text{C}_{14}\text{H}_9\text{O}_9)_2 + 5\text{H}_2\text{O} = 776.37$ (?).—Light, brown powd.—SOL.: In solut. NaOH ; insol. W.—ACTION: Antisep.; Styptic; Astring.—USES: Chronic catarrh of respir. organs; skin dis.

Aluminum Tannotartrate

$\text{Al}_2(\text{C}_4\text{H}_4\text{O}_6)_2(\text{C}_{14}\text{H}_9\text{O}_9)_2 + 6\text{H}_2\text{O} = 1100.48$ (?).—Yellowish-wh. lamellae or powd.; strong astring. taste.—SOL.: 2 W.—ACTION: Astring.; Antisep.—USES: Rhinological practice, for catarhal troubles. Can be insufflated plain or mixed; or applied in a gargle.

Aluminum Tartrate

Wh. to sltly yellowish, gum-like granules.—SOL.: Ammonia, acids; eas. hot W.

ALUMINUM TRIHYDRATE—see Aluminum Hydroxide

Aluminum & Ammonium Chloride

$\text{AlCl}_3 \cdot \text{NH}_4\text{Cl} = 186.88$.—Wh. cryst.—SOL.: W.

Aluminum & Ammonium Sulphate Merck—C.P.—Cryst.

Ammonium Alum.— $\text{Al}(\text{NH}_4)(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 453.35$.—Colorl. cryst. or wh. powd.; styp. taste.—SOL.: W., G.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.001%
Alkalies & Earths	0.30%
Arsenic (As)	0.000%
Iron (Fe)	0.003%
Other Heavy Metals	0.000%

do. Merck—U.S.P. X—Powd.

DESCRIPT. &c.: As preced'g.—SOL.: 5.2 W. at 25°C ., 0.3 boil. W.; freely sol. G.; insol. A., solut. reddens litmus paper.—MELT.: 94.5°C . in its own W. of cryst.—ACTION: Astring.; Emet.; Purg.; Styp.; Diuret.—USES: *Medic.*, as of Aluminum & Potass. Sulphate (*q. v.*).—*Techn.*, purifying drinking W.; in baking powders; galvanostegia; dyeing & printing fabrics; manuf. pigments, lakes, artif. gems, paper, vegetable glue, marble & porcelain cements; fire-proofing, tanning, etc.—DOSE: 0.3–1 Gm. (5–15 grn.); av. dose 0.5 (8 grn.).—INCOMP.: Iron, zinc, alkalies.

do. Merck—Exsiccated (Burnt Alum; Exsiccated Alum)—U.S.P. X—Powd.

$\text{AlNH}_4(\text{SO}_4)_2 = 237.16$.—Wh. gran. powd.—SOL.: Slowly & incompl. in abt 20 W. at 25°C ., 1.5 boil. W.; insol. A.—USES: As of Potassium Alum, dried.

Aluminum & Cesium Sulphate

Cesium Alum.— $\text{AlCs}(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 568.12$.—Colorl. cryst.—SOL.: Sltly W.

Aluminum & Cesium & Rubidium Sulphate

Cesium-Rubidium Alum.— $\text{Al}_2\text{CsRb}(\text{SO}_4)_4 + 24\text{H}_2\text{O} = 1088.88$.—Colorl. cryst.—SOL.: W.

Aluminum & Potassium *p*-Phenolsulphonate

Aluminum & Potassium Sulphocarbolate.— $\text{AlK}(\text{C}_6\text{H}_4\text{OHSO}_3)_4 = 758.52$.—Wh. to reddish cryst.—SOL.: W.—ACTION: Antisep.; Astring.; Styptic.—USES: In mouth washes, carcinoma, bone fistula, & malodorous & indolent ulcers.—APPL.: in 5%–20% solut.

Aluminum & Potassium Sulphate Merck—C.P.—Cryst.

Alum; Potassium Alum.— $\text{AlK}(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 474.41$.—Large, colorl., hard, transp. cryst., or crystalline fragments, or wh. cryst. powd.; astring. taste.—SOL.: Abt 8 cold, & less than 1 boil., W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.001%
Ammonium Salts (NH_3)	0.005%
Arsenic (As)	0.00075%
Iron (Fe)	0.003%
Other Heavy Metals	0.000%

USES: In staining solutions; clarifier (as alumina cream); identifying coloring matters; hardening agent in microscopy.

Aluminum & Potassium Sulphate Merck—U.S.P. X—Cryst., Gran., or Powd.

DESCRIPTION: As preced'g.—**SOL.:** 7.2 W. at 25° C., 0.3 boil. W., freely in G., & insol. A., U.S.P.; (10 cold W., insol. A. [90%], B.P.)—**MELT.:** 92° C. in its own W. of cryst.—**ACTION:** Astring.; Irrit.; Emetic; Styptic.—**USES:** *Intern.,* night sweats, gastro-intest. hemorrhages, hemoptysis, diar., painters' colic, nervous colic; somet. as emetic.—*Extern.,* hemorrhage, gleet, gonorr., leucorrhea, ophthalm., sweat'g feet.—**DOSE:** 0.3–1 Gm. (5–15 grn.) 3 to 4 t.p.d. in W.; aver. dose 0.5 Gm. (8 grn.), *emetic*, 1–2 teaspoonfuls.—**APPL.:** In substage, conc. solut., or 1%–5% solut.—**VETER. MED.,** horses & cattle, 10–25 Gm. (2½–6 dr.); sheep & pigs, 2–5 Gm. (30–75 grn.); dogs, 0.5–2 Gm. (8–30 grn.); cats & fowl, 0.25–1 Gm. (4–15 grn.); *extern.,* in 2%–5%–10% solut. as astringent.—**INCOMP.:** Alkalies, lead acetate, borax, carbonates, alkali hydroxides, galls, kino, lime-water, magnesia, mercury salts, phosphates, & tartaric acid.

do. Merck—Techn.—Lumps, or Powd.

Alum Flour; Alum Meal; Cube Alum.—**USES:** In dyeing; printing fabrics; manuf. dyes, lakes, paper, vegetable glue, marble cement, porcelain cement, explosives; in tanning, hardening gelatin, baking powders, purifying waters, clarifying sugar, hardening plaster casts, & in synthesis of ammonia as a catalyst.

do. Merck—Pencils, Mounted or Unmounted

USES: Remov. exub. granulations.

do. Merck—Exsiccated (Burnt Alum; Exsiccated Alum)—U.S.P. X—Powd.

$\text{AlK}(\text{SO}_4)_2 = 258.22$.—Wh., light, friable lumps or gran. powd.; styptic taste.—**SOL.:** Slowly & us'y incompl. in abt 20 W. at 25° C., & 1.5 boil. W.; insol. A.—**ACTION:** Eschar.; Astring., &c.—**USES:** To destroy exuberant granulations.—**VETER. MED.,** as caustic f. ulcers, exuberant tissue, etc.—**CAUT.:** Keep well stoppered, & fr. air.

ALUMINUM & POTASSIUM SULPHOCARBOLATE—see Aluminum & Potassium *p*-Phenolsulphonate

Aluminum & Rubidium Sulphate

Rubidium Alum. — $\text{AlRb}(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 519.76$.—Colorl. cryst.—**SOL.:** Hot W.

Aluminum & Sodium Chloride

$\text{AlCl}_3 \cdot \text{NaCl} = 190.18$.—Wh. to yellowish, cryst. powd.—**SOL.:** Eas. W.—**USES:** *Techn.,* in leather industry, & manuf. metal. Al.

Aluminum & Sodium Silicate

$\text{Na}_2\text{SiO}_3 \cdot \text{Al}_4(\text{SiO}_4)_3 = 506.40$.—Obt'd by add'g $\text{Al}(\text{OH})_3$ to boil'g solut. sod. silicate & NaOH.—**USES:** Surg. dress., spinal jackets, splints, &c.

Aluminum & Sodium Sulphate

Sodium Alum.— $\text{AlNa}(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 458.31$, or $\text{Al}_2(\text{SO}_4)_3 \cdot \text{Na}_2\text{SO}_4 + 24\text{H}_2\text{O} = 916.62$.—

Colorl. cryst. powd.—**SOL.:** v. eas. W. (abt 1:1 at 10° C.; 1:0.7 at 30° C.); insol. A.—**MELT.:** 61° C.—**USES:** As of potassium alum.

Aluminum & Zinc Sulphate

Zinc Alum. — $\text{Al}_2(\text{SO}_4)_3 \cdot \text{ZnSO}_4 + 24\text{H}_2\text{O} = 935.99$.—Wh., cryst.—**SOL.:** W.—**USES:** Cautic.

Alumol

Aluminum Naphtholsulphonate, or Betanaphtholdisulphonate. — $\text{Al}_2(\text{C}_{10}\text{H}_5\text{OH} \cdot [\text{SO}_3]_2)_3 = 960.65$.—Fine, alm. wh. powd.—**SOL.:** 1.5 W., G., sltly A., insol. E.—**ACTION:** Mild Antisept.—**USES:** Gonorrh. in women in 2%–5% solut.; as surg. antisept. in 0.5%–3% solut.; in otology & laryngology as powd., or 0.25%–1% solut. as douche, wash, or gargle; as cautery, in 10%–20% solut.

ALUMSTONE—see Aluminite

Alundum

An aluminum oxide, Al_2O_3 , obt. by fusing bauxite in the electric furnace.—Wh. to dark wine red, dense, cryst. lumps.—**USES:** *Techn.,* manuf. abrasives, refractories, filters, crucibles, etc.

ALUNITE—see Aluminite

Alveloz

Inspis. juice Euphorbia heterodoxa, Muell. Arg.—**ACTION:** Fibrinsolvent & Mild Caust.—**USES:** Cancer & syph. ulc.

Alypin

2-Benzoxo-2-dimethylaminomethyl-1-dimethylaminobutane, or Benzoyltetramethyldiaminoethylisopropylalcohol, Hydrochloride; Amydricaine Hydrochloride, B.P.C.— $\text{CH}_3 \cdot \text{CH}_2 \cdot \text{C}(\text{C}_6\text{H}_5\text{CO}_2)(\text{CH}_2\text{N}(\text{CH}_3)_2) \cdot \text{CH}_2\text{N}(\text{CH}_3)_2 \cdot \text{HCl} = 314.77$.—Wh., cryst., odorl., hygrosc., bitter powd.—**SOL.:** Eas. W.; freely in A., C.; insol. E.—**MELT.:** 169° C. (when dried at 100° C.).—**ACTION:** Loc. Anesth.—**USES:** Laryngology, ophthalmology, dentistry, minor surgery, &c. Solut. neutral, & may be sterilized by boil'g.—**APPL.:** *Extern.,* 5%–10% solut. f. nose & throat; *hypod.,* 1%–4% solut.; in ophthalm., 1%–2% solut.; 2% solut. in dentistry.—**INCOMPAT.:** Silver salts (except alypine nitrate), KI, caustic alkalies & alkali carbonates.

Alypin Nitrate

Wh. cryst. powd.—**SOL.:** Eas. W., A., C.; sparingly in E.—**MELT.:** 159° C.—**USES:** As of alypin, but partic. where the simultaneous exhibition of silver nitrate is desired.

AMADOU—see Agaric

AMANITINE—see Choline

Amapa-Milk

Milky sap of the bitter bark of Plumiera fallax, Muell. Arg., Apocynaceæ.—**HABIT.:** Brazil (Para & Amazonas).—**ACTION:** Antimalarial; Vermif.—**DOSE:** Children, 0.12 cc. (2 M) for each year of age.—*Extern.,* in cancerous sores.

Amaranth

Azo Acid Rubin 2 B.; Fast Red D.; Bordeaux S.—Sodium salt of *p*-sulphonaphthalene-azo-*p*-naphthol disulphonic acid.— $C_{20}H_{11}O_{10}N_2S_3Na_3=604.38$.—Reddish-brown powd.—**SOL.**: W.; diffc. A.—**USES**: The "certified" dye is permitted to be used as a food coloring (red); also dyeing wool & silk.

Amarine

$C_6H_5.C(C_6H_5)NH:CH(NH).C_6H_5=298.41$.—Condens. prod. of benzaldehyde & NH_3 .—Lustr., wh. cryst. powd.; tastel. w. bitter after-taste.—**SOL.**: A., E.—**MELT.**: $130^\circ-131^\circ$ C.

Amber

Succinite.—A fossil resin derived fr. the pinus species of the oligocene period.—**OCCUR.**: Prussian coast of the Baltic, & on coasts of Denmark & Sweden.—**SP. GR.**: 1.05–1.096.—**COMPOS.**: Mixt. of oxygenized resinous bodies. $C_{40}H_{64}O_4$ (approx.).—**LUSTER**: Resinous.—**COLOR**: Yellow, reddish, brownish.—**STREAK.**: Wh.—**FRACT.**: Conch.—**HARDN.**: 2–2.5.—**USES**: Varnishes & lacquers; prepar'g succinic acid & essential oil amber, etc.; selected pieces in making cigar holders, pipe stems, ornaments.

Ambergris

Morbid (?) concretion fr. intest. tract of the sperm whale, Physeter (Catodon) macrocephalus, L., Cetaceæ.—**OCCUR.**: Tropical seas or sea shores.—**SOL.**: E., C., hot A., fats, volat. oils; insol. solut. KOH.—**MELT.**: Abt 60° C.; inflamm'ble; alm. compl. volat. by heat.—**SP. GR.**: 0.8–0.92.—**CONSTIT.**: Fatty oil; ambrein (cholesterin, abt 80%–85%); benzoic acid.—**ACTION**: Antihyst.; Aphrod.; Antispasm., & Stim.—**USES**: *Medic.*, in typhoid.—*Techn.*, chiefly in perfumery as tincture & essence for fixing delicate odors.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.).—**Tinct.** (1:10), 0.6–2 cc. (10–30 M).

Amblygonite—Mineral

Hebronte.—**OCCUR.**: Penig, Saxony; Norway; France; U. S.—**COMPOS.**: $PO_4(AlF)Li$ w. $PO_4(AlOH)Li$.—**CRYST. SYST.**: Asym.—**LUSTER**: Vitr. to greasy.—**COLOR**: Wh. to pale greenish, bluish, yellowish, or brownish wh.—**STREAK**: Wh.—**FRACT.**: Uneven to conch.—**HARDN.**: 6.—**SP. GR.**: 3.01–3.09.—**USES**: Prep. lithium salts.

AMBROSIA—see Chenopodium

AMERICAN ALDER—see Alnus Serrulata

AMERICAN ELDER—see Sambucus

AMERICAN GINSENG—see Ginseng

AMERICAN HELLEBORE—see Veratrum Viride

AMERICAN HORSEMENT—see Monarda

AMERICAN INDIAN HEMP—see Apocynum

AMERICAN SAFFRON—see Carthamus

AMERICAN SPIKENARD—see Aralia

AMERICAN VALERIAN—see Cypripedium

AMERICAN VERATRUM—see Veratrum Viride

AMERICAN WORMSEED—see Chenopodium

AMIANTHUS—see Asbestos

AMIDOANTIPYRINE—see Amidopyrine

AMIDOETHANE—see Ethylamine, Anhydrous

AMIDOL—see Diaminophenol Hydrochloride

AMIDOMERCURIC CHLORIDE—see Mercury, Ammoniated

Amidopyrine Merck—U.S.P. X

Dimethylaminoantipyrine; Amidoantipyrine; Dimethylaminophenyldimethylpyrazolon; Pyramidon.— $C_6H_5N.CO.C(N[CH_3]_2):C(CH_3).N-CH_3=231.23$.—Colorl. cryst., or wh. cryst. powd.—**SOL.**: 18 W., 1.5 A., 12 B., 1 C., 13 E., at 25° C.—**MELT.**: $107^\circ-109^\circ$ C.—**ACTION**: Antipyr.; Antineuralg.; Anod.; Antirheum.—**USES**: Acute fevers, tuberculosis, pneumon., typhoid, scarlet fever, neural., influenza, rheum., peritonitis, headache, tabetic pains, multiple neuritis, intercostal neuralgia, asthma, gastralgia, toothache, &c.—**DOSE**: 0.3–0.5 Gm. (5–8 grn.) 1–2 t.p.d.; aver. dose 0.3 Gm. (5 grn.); in typhoid, 0.15 Gm. ($2\frac{1}{2}$ grn.) ev. 3 hrs, or 0.25 Gm. (4 grn.) 3–4 t.p.d., & 1 Gm. (15 grn.) p. day.—**MAX. D.**: 0.5 Gm. (8 grn.) single, & 1.5 Gm. (23 grn.) p. day.—**VETER. MED.**, dogs, 0.25–3 Gm. (4–45 grn.).

AMIDOPYRINE BICAMPHORATE—see Pyramidon Camphorate, Acid

AMIDOPYRINE DIETHYLBARBITURATE—see Peralga

p-Aminoacetanilid

Acetyl-*p*-phenylenediamine.— $NH_2.C_6H_4.NH.CO.CH_3=150.14$.—Wh. or sltly reddish needles.—**SOL.**: W.; eas. in A., E.—**MELT.**: 165° C.

p-Aminoacetophenone Merck

Paraminoacetophenone; Paraminomethylphenylketone; Paraminoacetylbenzene.— $COCH_3.[1].C_6H_4.NH_2[4]=135.12$.—Fr. *p*-nitroacetophenone by Zn & HCl.—Yellow need.; pleas., charact. odor.—**SOL.**: Eas. boil. W., A., E., HCl, B.—**MELT.**: Abt 106° C.—**BOIL.**: $293^\circ-295^\circ$ C.—**USES**: Test f. diacetic acid (Arnold; Liplawsky) & urine diazo react. (Brunner; Friedenwald-Ehrlich).

AMINOACETPHENETIDIN HYDROCHLORIDE — see Phenocoll Hydrochloride

p-AMINOACETYL BENZENE—see p-Aminoacetophenone

AMINOALPHATRIMETHYLBENZENE—see Pseudocumidine

p-Aminoazobenzene

Paraminoazobenzene; Paraminodiphenylimide.— $C_6H_5.N[1]:N.C_6H_4.NH_2[4]=197.17$.—Fr. aniline & $NaNO_2$ by HCl.—Brownish-yellow need.—**SOL.**: v. sltly W.; eas. A., B., C., & E.—**MELT.**: $123^\circ-124^\circ$ C.—**USES**: In form of its salts in dyeing; intermed. product in manuf. Acid Yellow, diazo dyes & indulines.

Aminoazobenzene Hydrochloride

$C_6H_5.N[1]:N.C_6H_4.NH_2[4].HCl=233.64$.—Steel-blue need. or blue-violet powd.—**SOL.**: A. w. reddish-yellow color; alm. insol. W.—**USES**: Coloring lacquers.

AMINOAZOBENZENEAZOBETANAPHTHOL—see Sudan Red III (A)

Aminoazotoluene

Orthoaminoazotoluene; Toluazotoluidine. — $\text{CH}_3 \cdot \text{C}_6\text{H}_4 \cdot \text{N} : \text{N} [1] \cdot \text{C}_6\text{H}_3 (\text{CH}_3) [3] \cdot \text{NH}_2 [4] = 225.21$.—Fr. *o*-toluidine by HNO_2 .—Dark yellow to red cryst.—SOL.: A., C., E., fixed oils; alm. insol. W.—MELT.: Abt 100°C .—USES: *Extern.*, in 8% oint. to stimulate granulation in wounds, panarites, varicose & syphil. ulcers of leg, in follicular erosions, ectropion of cervix & orifice, chron. suppur. of middle ear, etc.; also applied as gauze (impregnated w. a 4% alcohol. solut.), as powd. (1:10 w. boric acid), & in following mixt.: 10 Gm. aminoazotoluene, 20 Gm. zinc-superoxol, & 100 Gm. bism. subnitrate.—*Techn.*, in dyeing; also manuf. diazo dyes.

AMINOAZOTOLUENEAZOBETANAPHTHOL—see Biebrich Scarlet R, Medicinal

AMINO BENZENE (or -ZOL)—see Aniline

p-AMINO BENZOIC ACID ETHYLESTER—see Ethyl Aminobenzoate

p-AMINO BENZOYL DIETHYL AMINO-ETHANOL HYDROCHLORIDE—see Procaine Hydrochloride

AMINO BENZOYL DIMETHYL AMINO-1,2-DIMETHYLPROPANOL HYDROCHLORIDE—see Tutocaine

p-AMINO BENZOYL- α -DIMETHYL AMINO- β -METHYL- γ -BUTANOL HYDROCHLORIDE—see Tutocaine

p-AMINO BENZOYL-GAMMADINORMALBUTYL AMINO-PROPANOL SULPHATE—see Butyn

p-AMINO DIMETHYL ANILINE—see Dimethyl-*p*-phenylenediamine

AMINO DIMETHYL BENZENE—see *o*-Xylidine

p-AMINO DIPHENYL IMIDE—see *p*-Aminoazobenzene

AMINOETHANE—see Ethylamine, Anhydrous

AMINOETHANE HYDRIODIDE—see Ethylamine Hydriodide

AMINOETHANE HYDROCHLORIDE—see Ethylamine Hydrochloride

AMINOETHANE SULPHATE—see Ethylamine Sulphate

AMINOFORM—see Methenamine

AMINO MALONYLUREA—see Uramil

AMINO METHANE—see Methylamine, Anhydrous

AMINO METHYLPHEN—see Benzylamine

p-AMINO METHYLPHENYLKETONE—see *p*-Aminoacetophenone

AMINO-OXAMIDE—see Semioxamizide

AMINO-OXPURINE—see Guanine

AMINOPHEN—see Aniline

o-Aminophenol Hydrochloride

Orthoaminophenol, or Oxaniline, Hydrochloride. — $\text{C}_6\text{H}_4 \cdot \text{OH} [1] \cdot \text{NH}_2 [2] \cdot \text{HCl} = 145.56$.—Wh. cryst. powd.; eas. becomes gray on expos. to light.—SOL.: Eas. A., W.—USES: Manuf. azo & sulphur dyes; dyeing fur & hair.

p-Aminophenol

Paraminophenol. — $\text{C}_6\text{H}_4 \cdot \text{OH} [1] \cdot \text{NH}_2 [4] = 109.09$.—Fr. *p*-nitrophenol by reduct. w. Sn & HCl.—Yellow to reddish cryst. or powd., becom. violet on expos. to light.—SOL.: W., A.—MELT.: Abt 186°C . w. blackening & decomp.—USES: Textile dyeing; dyeing hair & furs; in fotogr. as a developer; test. f. formaldehyde (Manget-Marion); manuf. sulphur dyes.

p-Aminophenol Hydrobromide

$\text{C}_6\text{H}_4 (\text{OH}) (\text{NH}_2) \cdot \text{HBr} = 190.02$.—Cryst.—SOL.: W., A.

p-Aminophenol Hydrochloride

$\text{C}_6\text{H}_4 \cdot \text{OH} \cdot \text{NH}_2 \cdot \text{HCl} = 145.56$.—White., cryst. powd.; grad. becomes somewh. darker.—SOL.: Eas. W., A.—USES: As of *p*-Aminophenol.

p-Aminophenol Salicylate

Paraminophenol Salicylate — $\text{C}_6\text{H}_4 (\text{OH}) (\text{NH}_2) \cdot \text{C}_7\text{H}_6\text{O}_3 = 247.18$.—Wh. powd.—SOL.: A.

AMINOPROPYLENE—see Allylamine

AMINOTHIOUREA—see Thiosemicarbazide

o-AMINOTOLUENE (or, -OL)—see *o*-Toluidine

p-AMINOTOLUENE (or, -OL)—see *p*-Toluidine

AMINOTRIMETHYLBENZENE—see *pseudo*-Cumidine

AMINOUREA HYDROCHLORIDE—see Semicarbazide Hydrochloride

AMINOXYLENE—see *m*-Xylidine, Asymmetric; *o*-Xylidine

Amiodoxyl Benzoate

Ammonium *o*-Iodoxybenzoate. — $\text{C}_4\text{H}_4 (\text{IO}_2) \cdot \text{COONH}_4 = 273.02$.—Wh., odorl., sltly bitter, cryst. powd.—SOL.: Eas. W., sltly A., insol. B., E., & *o*. organ. solvents.—USES: Arthritis.—DOSE: 0.75–1 Gm. (12–15 grn.) in 100 cc. (25 fl. dr.) physiol. solut. NaCl intraven.; internally, the doses are twice as large as f. intraven. use.—CAUT.! Avoid overheating or exposure to a flame, or explosion will occur.

Ammonia Anhydrous—Liquid

$\text{NH}_3 = 17.03$.—Ammonia gas liquefied at abt -60°C . at ordin. pressure, or by a pressure of abt 150 lbs. (10 atmosph.) at 25°C ., or $97\frac{1}{2}$ lb. (6.5 atmosph.) at 10°C .—Colorl., mobile liq.; produces great cold by its own evap'n. All properties of ammonia intensified.—BOIL.: -38.5°C . at 760 mm.—USES: *Scientifically*, as solvent, etc.—*Techn.*, for freezing purposes, manuf. ice, &c.—Mktd in strong iron cylinders.—CAUT.: Great care in storing or opening.

AMMONIA, MURIATE—see Ammonium Chloride

AMMONIA SOAP—see Ammonium Oleate

AMMONIA WATER—see Water, Ammonia

Ammoniacum—B.P.

Gum Ammoniac.—Gum-resin exuded fr. the flowering & fruiting stem of *Dorema Ammoniacum*, Don., & prob. *o*. spec. *Umbelliferae*.—HABIT.: Persia & Northern India; also Southern Siberia.—Irreg., rounded tears, yellowish or

brownish outside & whitish within, opaque, brittle when cold, but soft when warm; also masses, darker in color & less homogen.; peculiar odor; slt sweetish, bitter, somew. acrid taste.—**SOL.**: Partly in W., A., E., vinegar, & alkali. solut.; forms emuls. w. W.—**SP. GR.**: 1.207.—**CONSTIT.**: Volat. oil (1%–2%); resin (65%–70%); salicylic acid; resinotanol; gum.—**ACTION**: Stim.; Expector.; Diur.; Diaph.; Emmen.—**USES**: *Intern.*, chronic catarrh, hysteria, asthma, colds, &c.—*Extern.*, indol. tumors & white swelling of joints; also as plaster.—*Techn.*, ingred. in porcel. cements.—**DOSE**: 0.3–1 Gm. (5–15 grn.) in pill or emuls.

AMMONIATED MERCURY CHLORIDE—see Mercury, Ammoniated

AMMONIATED MERCURY NITRATE—see Mercury Oxide, Black, Hahnemann

AMMONIO-CUPRIC ACETATE—see Copper Acetate, Ammoniated

AMMONIOFERRIC ALUM—see Iron & Ammonium Sulphate, Ferric

AMMONIOFERRIC CITROPHOSPHATE—see Iron Pyrophosphate with Ammonium Citrate

AMMONIOFERROUS SULPHATE—see Iron & Ammonium Sulphate, Ferrous

Ammonium Acetate Merck—Reagent

$\text{NH}_4\text{C}_2\text{H}_3\text{O}_2 = 77.07$.—Colorl., hygrosc. cryst. or wh., cryst. masses; slt acetous odor.—**SOL.**: Less than 1 W.; eas. A.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.010%
Chloride (Cl)	0.000%
Nitrate (N_2O_5)	0.001%
Sulphate (SO_3)	0.002%
Calcium (Ca)	0.002%
Iron (Fe)	0.000%
Other Heavy Metals	0.000%

USES: Determ. Pb & Fe; separ. PbSO_4 & CaSO_4 fr. each other & fr. BaSO_4 & SrSO_4 .—**CAUT.**: Keep in well-stoppered bots.

Ammonium Acetate Merck—C.P.

$\text{NH}_4\text{C}_2\text{H}_3\text{O}_2 = 77.07$.—Wh., v. hygrosc., cryst. mass.—**SOL.**: v. eas. (less than 1) W.; eas. A.—**CAUT.**: Keep in well-stoppered bots.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.030%
Chlorides (Cl)	0.003%
Sulphate (SO_3)	0.005%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—Cryst.

DESCRIPTION & SOL.: as preced'g.—**ACTION**: Diaph.; Refrig.; Antipyr.—**USES**: Scarlet fever, rheum., neuralg., cyst.; in febr. dis., w. carbonic-acid W.; alcoh. pois'ng; also as antid. in poison by formaldehyde.—**DOSE**: 1–2 Gm. (15–30 grn.) 6 or 8 t.p.d., in sweet. carbonic-acid W.—**CAUT.**: Keep well stoppered.

AMMONIUM ACETATE SOLUTION—see Solution Ammonium Acetate

AMMONIUM ALUM—see Aluminum & Ammonium Sulphate

Ammonium Anacardate—Acid

Amm. compd of beta & delta resinous acids of Anacardium occidentale, L. (Cashew nut).—Brown, viscid mass.—**SOL.**: A.—Decomp. by heat w. liberat. of amm.—**USES**: Hair dye (rarely).

Ammonium Arsenate Merck

Diammonium Arsenate; Dibasic, or Secondary, Ammonium Arsenate.— $(\text{NH}_4)_2\text{HAsO}_4 = 176.05$.—Wh., monoclin. cryst. which grad. lose NH_3 on expos. to air, & are converted into the primary salt, $\text{NH}_4\text{H}_2\text{AsO}_4$.—**SOL.**: Eas. W.—**ACTION**: Alter.—**USES**: Chiefly in obstinate skin dis.—**DOSE**: 0.0012 Gm. ($\frac{1}{50}$ grn.) grad'y incr. to 0.002 Gm. ($\frac{1}{30}$ grn.), 3 t.p.d., in plenty of water.

Ammonium Arsenite Merck

$\text{NH}_4\text{AsO}_2 = 125.00$.—Wh. powd.—**SOL.**: v. eas. W.

AMMONIUM ATREOLATE—see Atreol

Ammonium Benzoate Merck—U.S.P. X

$\text{C}_6\text{H}_5\text{COONH}_4 = 139.12$.—Colorl., lamellar cryst. or cryst. powd.; odorl., or faint odor of benzoic acid.—**SOL.**: Abt 10 W., 35.5 A., 8 G., at 25° C., U.S.P.; (6 W., 30 A. [90%], B.P.)—**ACTION**: Expector.; Antisep.; *Antipyr.; Diur.; Diaphoretic.—**USES**: Bronch. catarrh, & asthma in the aged, &c.; gastro-intest. dis.; rheumat., gout, nephritis; mercurialism & iodism.—*Techn.*, as preservative.—**DOSE**: 0.3–1 Gm. (5–15 grn.) 3 or 4 t.p.d.; aver. dose 1 Gm. (15 grn.); 0.25 Gm. (4 grn.) 4–8 t.p.d. in mercurialism & iodism.—**VETER. MED.**, as expector. & diur. f. dogs, 0.6–2 Gm. (10–30 grn.) 3–4 t.p.d.—**INCOMP.**: Ferric salts; acids; solut. KOH.—**CAUT.**: Keep well stoppered. Loses ammonia on exposure.

do. Merck—From True Benzoic Acid

Wh., lustr., lamellar cryst.—**SOL.**: Eas. W.; A., G.

"AMMONIUM BIBORATE"—see Ammonium Borate

AMMONIUM BICAMPHORATE—see Ammonium Camphorate

Ammonium Bicarbonate Merck

Acid Ammonium Carbonate; Ammonium Hydrogen Carbonate.— $\text{NH}_4\text{HCO}_3 = 79.05$.—Hard, cryst., colorl. lumps; odor of NH_3 ; efferves. w. acids; volatil. by heat.—**SOL.**: 8 W., insol. A.—**ACTION**: Antacid; Stim.—**USES**: Acid fermentation of stom.; stim. in depressed condit.—*Techn.*, in baking powder, as at 60° C. it is slowly decomp. into CO_2 , NH_3 , & W.; also in fire extinguishers, manuf. dyes, defatting textiles.—**DOSE**: 0.2–0.6 Gm. (3–10 grn.).—**INCOMP.**: Acids; caustic alkalies & alkali hydroxides.

Ammonium Bifluoride Merck—Pure

Hydrogen Ammonium Fluoride; Acid Ammonium Fluoride.— $\text{NH}_4\text{F.HF} = 57.05$.—Colorl. cryst. which etch glass.—**SOL.**: Eas. W.—**USES**:

In chem. analysis for decompos. silicates; in 30% solut. in pyorrhea alveolaris.—*Techn.*, etching glass; improperly instead of Pasteurizing for preventing secondary fermentation & cloudiness in export-beer & wine, in quant. of 2 Gm. per hectoliter; purifying & cleansing various parts of beer-testing apparatus, tubes, etc., & steriliz'g dairy & other food equipment, in 0.4% aqu. solut.; as mordant f. aluminum.—CAUT.: Keep well stoppered.

Ammonium Bimalate

$\text{NH}_4\text{HC}_4\text{H}_4\text{O}_5 = 151.10$.—Wh. cryst.—SOL.: Eas. W.

Ammonium Binoxalate

Ammonium Bioxalate; Acid Ammonium, or Ammonium Hydrogen Oxalate.— $(\text{NH}_4\text{HC}_2\text{O}_4)_2 + \text{H}_2\text{O} = 232.13$.—Colorl., rhomb. cryst.—SOL.: 25 W.—USES: Remov. ecchymotic spots on face; remov'g ink stains.

AMMONIUM BIOXALATE—see Ammonium Binoxalate

AMMONIUM BIPHOSPHATE—see Ammonium Phosphate, Monobasic

Ammonium Bisulphate Merck—C.P.

Ammonium Hydrogen Sulphate; Acid Ammonium Sulphate.— $\text{NH}_4\text{HSO}_4 = 115.11$.—Colorl., sltly deliq. cryst.—SOL.: v. eas. (abt 1) W.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	1.200%
Chloride (Cl).....	0.000%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: *Medic.*, gastric affect.—DOSE: 1–4 Gm. (15–60 grn.)

Ammonium Bisulphite

Ammonium Pyrosulphite. — $(\text{NH}_4)_2\text{S}_2\text{O}_5 = 180.20$.—Wh., hygrosc. cryst. Loses SO_2 on contact w. air, & is oxidized.—SOL.: Eas. W.—ACTION: Antisep.—USES: *Intern.*, ferment, dyspep.—*Extern.*, wash in sore mouth & skin affect.—*Techn.*, manuf. intermediates.—DOSE: 0.6–2 Gm. (10–30 grn.).

Ammonium Bitartrate

Acid Ammonium Tartrate.— $\text{NH}_4\text{HC}_4\text{H}_4\text{O}_6 = 167.10$.—Wh. cryst.—SOL.: 50 W.—USES: Baking powd.

Ammonium Borate

So-called "Ammon. Biborate".— $(\text{NH}_4)_2\text{O} \cdot 5\text{B}_2\text{O}_3 \cdot 8\text{H}_2\text{O} = 545.21$.—Wh. cryst.—SOL.: W.—USES: *Intern.*, renal colic, chron. cyst. &c.; w. codeine in pulm. tuberc.—*Techn.*, fireproofing wood & textiles.—DOSE: 0.6–1.3 Gm. (10–20 grn.) ev. hour.

Ammonium Borobenzoate

A mixt. of ammonium benzoate & ammonium borate.—Wh. powd.—ACTION: Antiseptic.—USES: As preservative.

Ammonium Borocitrate

Probably $\text{C}_6\text{H}_6\text{O}_7(\text{BO})\text{NH}_4 = 235.02$.—Obt'd by evap'g to dryness a solut. of 10 parts citric acid & 3 parts boric acid in 8.5 parts double strength

ammonia water.—Wh., cryst. powd.—SOL.: W.—USES: As of ammonium borate.

Ammonium Bromide—C.P.—Gran.

$\text{NH}_4\text{Br} = 97.96$.—Wh., odorl., somewh. hygroscop. cryst. powd., or colorl. cryst.; pung., saline taste.—SOL.: Eas W.; abt 12 A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.05%
Bromate (BrO_3).....	0.002%
Chloride (Cl).....	Abt 0.50%
Iodide (I).....	0.00%
Sulphate (SO_3).....	0.020%
Heavy Metals.....	0.000%

do. Merck—U.S.P. X

DESCRIPT.: As preced'g.—SOL.: 1.3 W., 12 A. at 25° C., 0.9 boil. W., & 1.2 boil. A., U.S.P.; (1.5 W., 13 A.[90%], B.P.).—Volat. at high temp. without melt.—ACTION: Nerve Sed.—USES: *Medic.*, epilepsy, delir. trem., whoop-cough, nerv. headache, &c.—*Techn.*, manuf. photog. films, plates, & papers; in process engraving & lithography.—DOSE: 0.3–2 Gm. (5–30 grn.) sev'l t.p.d., in dil solut.; aver. dose 1 Gm. (15 grn.); children, 0.1–0.3 Gm. ($1\frac{1}{2}$ –5 grn.); adults, up to 10 Gm. (150 grn.) p.d.—In VETER. MED., in epilepsy following glanders. DOSES for horses & cattle 20–50 Gm. (5–12½ dr.) single, 100 Gm. (25 dr.) p.d.; dogs 0.25–2 Gm. (4–30 grn.) single, 2–5 Gm. (30–75 grn.) p.d.; sheep & pigs, 2–5 Gm. (30–75 grn.) single, 10 Gm. ($2\frac{1}{2}$ dr.) p.d.; cats, 0.25–0.5 Gm. (4–8 grn.) single, 1 Gm. (15 grn.) p.d.; fowl, 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.).—INCOMP.: Acids, acid salts, spirit nitrous ether, alkaloids; Hg & Ag salts.

Ammonium Camphorate

Acid Ammonium, or Ammonium Hydrogen, Camphorate; Ammonium Bicamphorate.— $\text{NH}_4\text{HC}_{10}\text{H}_{14}\text{O}_4 = 217.21$; contains some aq. ($3\text{H}_2\text{O}$?).—Wh., cryst. powd.—SOL.: Eas. W.—ACTION: Stim.; Nerve Sed.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Ammonium Carbamate

"Anhydride" of Ammonium Carbonate; Ammonium Carbamate. — $\text{NH}_2\text{CO.O.NH}_4 = 78.07$.—By pass. NH_3 & CO_2 into absol. A.—Wh., volat., cryst. powd.; odor of NH_3 ; changed grad. in air to ammon. carbonate.—SOL.: A.; eas. W.—ACTION: Stimulant.—USES: Manuf. ammonium carbonate.

AMMONIUM CARBAMINATE—see Ammonium Carbamate

AMMONIUM CARBAZOTATE—see Ammonium Picrate

AMMONIUM CARBOLATE—see Ammonium Phenate

Ammonium Carbonate Merck—Reagent—Lumps

$\text{NH}_4\text{HCO}_3 + \text{NH}_4\text{NH}_2\text{CO}_2$.—Wh., hard, translucent lumps which lose NH_3 & CO_2 on expos. to air & are converted into porous, friable

masses or wh. powd.—**SOL.**: Abt 5 W.; partly in A. (only the carbonate dissolves).

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Chloride (Cl).....	0.0005%
Phosphate (P ₂ O ₅).....	0.001%
Sulphate (SO ₃).....	0.001%
Thiosulphate [(NH ₄) ₂ S ₂ O ₃] ...	0.000%
Sulphocyanate (CNS).....	0.000%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%
Tar Bases.....	None

USES: Group reagent f. alkali earths, & separat'g them fr. Mg & the alkalies; separat'g As fr. Sb, Mg fr. Li, & Cl fr. Br & I.

Ammonium Carbonate Merck—C.P.—Cubes

"Hartshorn"; Ammonium Sesquicarbonate.—Mixt. of acid amm. carbonate, NH₄HCO₃, & amm. carbamate, NH₄NH₂CO₂, obt. by subl'g a mixt. (NH₄)₂SO₄ w. CaCO₃.—30%–32% NH₃.—Wh., hard, transl., cryst. masses; strong NH₃ odor & alkal. react.; sharp, ammoniacal taste; effervesc. w. acids; decomp. on expos. to air w. loss of NH₃, & bec. converted into wh. lumps or powd. (ammon. bicarbonate); volat. compl. w. heat.—**SOL.**: Abt 5 W.; partly in A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.005%
Heavy Metals.....	0.000%
Tar Bases.....	None

USES: As of the Reagent, above.

do. Merck—C.P.—Lumps

DESCRIPT., ETC.: As preced'g.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.010%
Chloride (Cl).....	0.002%
Sulphate (SO ₃).....	0.005%
Thiosulphate (as S ₂ O ₃).....	0.002%
Heavy Metals.....	0.000%
Tar Bases.....	None

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Lumps or Cubes

DESCRIPTION: As preced'g.—**SOL.**: Slowly but compl. in 4 W. at 25° C., partially in A. & decomp. by hot W., U.S.P.—**ACTION:** Rubef.; Cardiac Stim.; Expector., &c.—**USES:** *Intern.*, syncope, heart fail., alcoholism, pneum., typhoid, phth., & hyst.—*Extern.*, rubefacient, & by inhalation in fainting, chron. coryza & bronch. catarrh.—**DOSE:** 0.2–0.6 Gm. (3–10 grn.); aver. dose 0.3 Gm. (5 grn.).—**VETER. MED.**, horses, 10–25 Gm. (2½–6 dr.); cattle 20–50 Gm. (5–12½ dr.); sheep & pigs, 1–4 Gm. (15–60 grn.); dogs, 0.2–1 Gm. (3–15 grn.); fowl, 0.1–0.5 Gm. (1½–8 grn.).—**INCOMP.**: Acids, & acid salts; salts of Fe, Pb, Ag, & alkaloïds; alum, HgCl, HgCl₂, potassium bitartrate or bisulphate; tartar emetic, ZnSO₄.—**CAUT.**: Keep well stoppered.

Ammonium Carbonate Merck—Powd.

Mixt. ammon. bicarb. (NH₄)HCO₃, & ammon. carbamate, NH₂CO₂NH₄.—Wh. powd.; strong NH₃ odor.—**USES:** *Techn.*, separ. cacao constituents, in baking powders, washing & de-fatting woollens, tanning, as mordant in dyeing; manuf. rubber articles, casein, glue, casein colors, fire extinguishers, smelling salts, ammonium salts, & carbonates.

AMMONIUM CARBONATE "ANHYDRIDE"—see Ammonium Carbamate

Ammonium Chloride Merck—Reagent

NH₄Cl = 53.50.—Wh., gran.—**SOL.**: Eas. in abt 3 W., abt 80 A.—Sublimes without melt'g.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.010%
Free Acid (as HCl).....	0.003%
Arsenate (As ₂ O ₅).....	0.001%
Phosphate (P ₂ O ₅).....	0.0005%
Sulphate (SO ₃).....	0.002%
Sulphocyanate (CNS).....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%
Tar Bases.....	0.000%

USES: Separat'g Fe & Zn groups of metals, & Mg fr. Ba, Se, & Ca; convert'g metallic oxides & salts into chlorides; remov'g volat. chlorides by sublimation; pptng Al, Pt, & Ir; constituent of magnesia mixt.; detect'g uric acid (Dimmock).

Ammonium Chloride Merck—C.P.—Gran.

NH₄Cl = 53.50.—Wh., odorl., granules or powd.; cool, saline taste.—**SOL.**: Abt 3 W.; abt 80 A.—Sublimes without melt'g.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Phosphate (P ₂ O ₅).....	0.001%
Sulphate (SO ₃).....	0.005%
Sulphocyanate (CNS).....	0.010%
Heavy Metals.....	0.000%
Tar Bases.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Gran. or Powd.

DESCRIPTION: As preced'g.—**SOL.**: 2.6 W., 100 A. (95%), & 8 G. at 25° C., 1.4 boil. W., U.S.P.; (3 W., 60 A. [90%], B.P.).—Sublimes completely.—**ACTION:** Stim.; Expector.; Anti-neur.—**USES:** *Intern.*, bronch. affect., hepatic congest., pelvic cellul., musc. rheumat., gout, sciatica, neural., chronic gland. enlarg., hemi-crania, senile gangr., dysmenor., leucor.—*Extern.*, inhalations (1:10–500), & wet compresses (1:5–20).—**DOSE:** 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.3 Gm. (5 grn.) sev'l t.p.d.—**VET. MED.** horses; 4–15 Gm. (1–4 dr.); cattle, 10–25 Gm. (2½–6 dr.); sheep & pigs, 0.5–2 Gm. (8–30 grn.); dogs, 0.1–1 Gm. (1½–15 grn.); cats, 0.1–0.2 Gm. (1½–3 grn.); fowl, 0.05–0.2 Gm. (¾–3 grn.); aqu. solut. formerly used as compress on bruises.—**INCOMP.**: Alkalies & their carbonates; lead & silver salts.

do. Merck—Technical—Gran., Lumps, or Powd.—99%–100%

Muriate of Ammonia; Sal Ammoniac.—Wh. or sltly yellowish granules, lumps, or cryst. powd.—**SOL.**: As preced'g.—**USES**: Coating sheet iron w. zinc; tinning; soldering; in dry & Leclanché batteries; manuf. dyes; dyeing; manuf. iron cements; freezing mixtures; manuf. o. NH_4 salts.

Ammonium Chloride Ferrated

Ammoniated Iron; Ammonio-chloride of Iron.—Abt 2.5% FeCl_3 & 97.5% NH_4Cl .—Reddish-yellow, hygrosc. powd.—**SOL.**: 3 W., dil. A.—**ACTION**: Aper.; Chalyb.—**USES**: Rachitis, amenor., scrof., chlor., epilepsy, catarrh, &c.—**DOSE**: 0.25–1 Gm. (4–15 grn.), in solut., sev'l t.p.d.—**VETER. MED.**, in chronic catarrh of cage birds, a pinch placed in the drinking water.—**CAUT.**: Keep well stopp., & fr. light.

Ammonium Chromate Merck—Neutral—C.P.

$(\text{NH}_4)_2\text{CrO}_4 = 152.08$.—Yellow, acicular cryst.—**SOL.**: Abt 5 W. (solut. alkaline to litmus); insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO_3).....	0.050%
Alkali Salts.....	0.20%
Calcium (Ca).....	0.005%

USES: Separat'g alkaline earth metals; detect'g Pb, Hg, Ag, & Ba; also inst. of K_2CrO_4 .—The *technical* grade is used f. sensitizing gelatin in photography; mordant in dyeing.

Ammonium Citrate Merck—C.P.—Gran.

Diammonium Citrate.— $(\text{NH}_4)_2\text{HC}_6\text{H}_5\text{O}_7 = 226.16$.—Wh. granules or powd.—**SOL.**: Eas. W.; sltly A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.030%
Chloride (Cl).....	0.001%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

do. Merck—Gran. or Powd.

DESCRIPTION & SOL.: As preced'g.—**ACTION**: Diaphor.; Antipyr.; Diuretic.—**USES**: Fevers, cystitis, & lithiasis.—**DOSE**: 1–3 Gm. (15–45 grn.) sev'l t.p.d.—**CAUT.**: Keep fr. air.

AMMONIUM CITRATE SOLUTION—see Solution Ammonium Citrate

AMMONIUM CUPRIC CHLORIDE—see Copper & Ammonium Chloride

AMMONIUM CUPRIC SULPHATE—see Copper Sulphate, Ammoniated

Ammonium Dichromate Merck—C.P.—Cryst.

$(\text{NH}_4)_2\text{Cr}_2\text{O}_7 = 252.08$.—Orange-red, monoclin. cryst.—**SOL.**: Eas. 3 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.030%
Alkali Salts.....	0.30%
Aluminum (Al).....	0.020%
Calcium (Ca).....	0.002%

USES: As oxidizer.

do. Merck—Cryst.

DESCRIPTION & SOL.: As of preced'g.—**USES**: Pyrotechn., electrotechn., glass industry, & manuf. ink & leather; in photographic gum process; mordant in dyeing; purify'g oils & fats; manuf. alizarin & smokeless powder; making aniline black prints.—**CAUT.**: Poison!

AMMONIUM DIIODOPARAPHENOLSULPHONATE—see Soziodole-Ammonium

Ammonium Dithiocarbamate

Normal Ammonium Dithiocarbamate, or Sulphocarbamate.— $\text{NH}_2\text{CS.SNH}_4 = 110.19$.—Fr. NH_3 & CS_2 .—Yellow, lustr., alm. odorl. cryst. (when recent).—**SOL.**: W.—The prep. soon is decomp'd & is then no longer clearly sol., has an odor of H_2S or $(\text{NH}_4)\text{HS}$, & accord. to degree of decomp'n, then consists of a mixt. of ammon. sulphocarbamate, $(\text{NH}_4)\text{SCN}$, & $(\text{NH}_4)_2\text{S}$ or S & W.; in well stopp. bot. only v. sm. quant. of $(\text{NH}_4)\text{SCN}$ forms.—**USES**: In 10% solut. inst. of H_2S & $(\text{NH}_4)_2\text{S}$ f. pptng metals in qualitative analysis (Vogtherr).

AMMONIUM DITHIOCARBAMINATE, NORMAL—see Ammonium Dithiocarbamate

Ammonium Embelate

$(\text{NH}_4)_2\text{C}_{18}\text{H}_{26}\text{O}_4 = 342.38$. — Grayish-violet powd.—**SOL.**: W., dil. A.—**ACTION**: Formerly used as a teniafuge.—**DOSE**: Children, 0.2 Gm. (3 grn.); adults, 0.4 Gm. (6 grn.), in syrup or honey, or in wafers, on an empty stomach, & followed by castor oil. The treatment is preceded by a milk diet for 3 days.—**CAUT.**: Handle with care; irritates muc. membranes & may cause prolonged & violent sneezing.

Ammonium Ethylsulphate

Ammonium Sulphethylate, or Sulphovinate.— $\text{NH}_4\text{C}_2\text{H}_5\text{SO}_4 = 143.15$.—Fr. barium ethylsulphate & $(\text{NH}_4)_2\text{SO}_4$.—Colorl. to sltly yellowish, hygrosc. cryst.—**SOL.**: Eas. W.—**MELT.**: 99°C . w. prev. softening.

Ammonium Ferricyanide

$(\text{NH}_4)_3\text{Fe}(\text{CN})_6 = 266.04$.—Red cryst.—**SOL.**: Eas. W.—**USES**: Test f. ferrous iron; making blue-print paper.

Ammonium Ferrocyanide

$(\text{NH}_4)_4\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O} = 338.13$.—Yellow to greenish cryst. powd.; turns blue in air.—**SOL.**: Eas. W.—**USES**: Test f. ferric iron.—**CAUT.**: Keep dark; stopper tight.

Ammonium Fluoride Merck—C.P.

$\text{NH}_4\text{F} = 37.04$.—Sm., deliq., acic. cryst.—**SOL.**: v. eas. W.; sltly in A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.10%
Chloride (Cl).....	0.010%
Silicate (SiO_2).....	0.50%
Sulphate (SO_3).....	0.030%
Ammonium Bifluoride ($\text{NH}_4\text{F} \cdot \text{HF}$).....	5.0%
Heavy Metals.....	Trace

USES: *Chem.*, analysis of silicates; blowpipe reagent.—*Medic.*, as Antiperiodic & Alter., *intern.*, hypert. of spleen, & in goiter; also in dyspep.

flatulence, & abnorm. intestinal fermentation processes.—A 1:1000 solut. is said to inhibit cancer tumor growths, but a 1:2000 solut. not.—*Extern.*, as inhalation (0.2% solut.) in phthisis.—*Techn.*, etch'g glass; as antisept. in brewing beer; decompos'g minerals; printing & dyeing textiles.—DOSE: 0.3–1.3 cc. (5–20 M) of a 0.9% solut.; in flatul. dyspep. 0.05 Gm. ($\frac{3}{4}$ grn.) after meals.—INCOMP.: HNO_3 , quinine salts, spirit nitrous ether, soluble calcium salts.—CAUT.: Keep in guttapercha bottles.

AMMONIUM FLUORIDE, ACID—see Ammonium Bifluoride

Ammonium Formate Merck—C.P.

NH_4COOH = 63.05.—Colorl., deliquescent. cryst.—SOL.: v. eas. W.; A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Heavy Metals.....	0.000%

USES: *Chem.*, as reducer (comp'ds of Ag, Hg, Au, & Pt are reduced to metal).—*Medic.*, *intern.*, chronic paral., palsy of sensat. or motion; *extern.*, in aqu. solut. as an antisept. by inhal. in affect. of nose, throat, & fauces.—DOSE: 0.3 Gm. (5 grn.) sev'l t.p.d.

Ammonium Gallate

$\text{NH}_4\text{C}_6\text{H}_2(\text{OH})_3[3:4:5]\text{COO}[1] + \text{H}_2\text{O}$ = 205.13.—Light-yellow cryst. need. or powd.—SOL.: Eas. W., A.

Ammonium Glycerophosphate—Abt 50% Solution

$(\text{NH}_4)_2\text{PO}_4\text{C}_3\text{H}_5(\text{OH})_2$ = 206.19, + aq.—Colorl., clear, or sltly turbid liq.—MISC.: All proport. W.—USES: Deficient nerve nutrition, neurasth., Addison's dis., phosphaturia, convalesc. fr. influenza, &c.—DOSE: 0.3–0.6 cc. (5–10 M) sev'l t.p.d.—CAUT.: This prep. eas. decomposes, w. liberation of glycerophosphoric acid, & hence it always cont. some free H_3PO_4 . It is therefore not advisable to keep the prep. long in stock. The prep. should furthermore be kept in well-filled, & best in sterilized, bots.

AMMONIUM HEPTINCHLORARSINATE—see Solarson

Ammonium Hippurate

$2\text{NH}_4\text{C}_6\text{H}_8\text{NO}_3\text{H}_2\text{O}$ = 410.34.—Colorl. to sltly yellowish cryst.—SOL.: A.; eas. W.—USES: In arteriosclerosis to reduce blood pressure.—DOSE: 0.3–1 Gm. (5–15 grn.).

AMMONIUM HYDROGEN CAMPHORATE—see Ammonium Camphorate

AMMONIUM HYDROGEN CARBONATE—see Ammonium Bicarbonate

AMMONIUM HYDROGEN FLUORIDE—see Ammonium Bifluoride

AMMONIUM HYDROGEN OXALATE—see Ammonium Binoxalate

AMMONIUM HYDROGEN SULPHATE—see Ammonium Bisulphate

AMMONIUM HYDROGEN SULPHIDE } see Ammonium Sulphide

AMMONIUM HYDROSULPHIDE }

AMMONIUM HYDROSULPHIDE SOLUTION—see Solution Ammonium Sulphide, Yellow

Ammonium Hypophosphite Merck—N.F. V—Cryst.

$\text{NH}_4\text{H}_2\text{PO}_2$ = 83.10.—Colorl., hygrosc. cryst.—SOL.: Abt 1 W., 20 A., at 25° C.; v. eas. boil. W. or A.—ACTION: Stimul.; Expectant; Alter.; Nerve Tonic.—USES: Phth.; all diseases w. loss of nerve power; later stages of acute bronch. & laryng., & in chron. catarrhal condit.—DOSE: 0.06–0.4 Gm. (1–6 grn.); av. dose, 0.2 Gm. (3 grn.).—CAUT.: Keep well stopp'd.

AMMONIUM HYPOSULPHITE—see Ammonium Thiosulphate

AMMONIUM "Ichthyol" SULPHONATE—see Ichthyol

Ammonium Iodide Merck

NH_4I = 144.96.—Wh., hygrosc., odorl., cryst., unstable powd.; sharp, saline taste.—SOL.: 0.6 W., 3.7 A., & 1.5 G., at 25° C., & 0.5 boil. W., U.S.P.—Decomp. & volat. at h. temp. without melt.; grad. becomes yellow to yellowish-brown on expos. to air & light.—ACTION: Alter.; Resolv.—USES: *Intern.*, syph., rheumat., scrof., phth., &c.—*Extern.*, lepra, psoria.—*Techn.*, in photogr. to prepare sensit. collodion (celluloid-collodion).—DOSE: 0.12–0.6 Gm. (2–10 grn.) 6 or 8 t.p.d.; aver. dose 0.3 Gm. (5 grn.).—MAX DOSE: 1 Gm. (15 grn.).—VETER. MED., in chron. bronchitis in dogs 8–15 cc. (2–4 fl. dr.) of a 2–5:150 solut. sev'l t.p.d.—CAUT.: Keep well stoppered & fr. light.

AMMONIUM o-iodoxybenzoate—see Amiodoxyl Benzoate

AMMONIUM IRIDOBROMIDE—see Iridium & Ammonium Sesquibromide

Ammonium Lactate Merck

$\text{NH}_4\text{C}_3\text{H}_5\text{O}_3$ = 107.10.—Clear, colorl. or sltly yellowish, syrupy liq.; slt odor of HN_3 .—MISC.: W. & A. in all proport.—SP. GR.: 1.19–1.21 at 15° C.—CAUT.: Keep cool. Decomp. when warm.

AMMONIUM METAVANADATE—see Ammonium Vanadate

Ammonium Molybdate Merck—Reagent

$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} + 4\text{H}_2\text{O}$ = 1236.30.—Colorl. or sltly greenish or yellowish cryst.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.003%
Phosphate (P_2O_5).....	0.0005%
Sulphate (SO_3).....	0.030%
Heavy Metals.....	0.000%

USES: Detect'g & determ. phosphates, arsenates, Bi & Pb; reag. f. sugar (Beythien; Böttger; Cotton; Hager), alkaloids (Buckingham; Fröhde-Buckingham; Loof; Marmé), lecithin (Casanova), albumin (Corzo; Jaworowski), tartaric acid (Crismer), As (Denigès),

H₂S (Ganassini), H₂O₂ Denigès), free mineral acids (Ganassini; Hager), tannin (Gardiner), uric acid (Gigli), terpin hydrate (Isnard), SnCl₂ (Longstaff), H₃PO₄ (Lorenz; Muller; Neubauer; Wagner), H₃AsO₄ (Maderna), levulose (Pinoff), Ni (Pozzi-Escot), Sn (Rogers) formaldehyde (Rothenfusser), glue (Schmidt), glucose (Ventre), alcohol (Vitali).

Ammonium Molybdate Merck—C.P.

(NH₄)₆Mo₇O₂₄ + 4H₂O = 1236.30.—Colorl. or sltly greenish or yellowish cryst.—SOL.: Eas. W. (solut. decomp. on stand'g).

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Nitrate (N ₂ O ₅)	0.010%
Phosphate (P ₂ O ₅)	0.001%
Sulphate (SO ₃)	0.050%
Heavy Metals	Trace

USES: As of the Reagent, above.—The *technical* grade is used for producing patina on zinc, manuf. a blue dye, &c.; in microsc. in maceration & fixing solutions.

Ammonium Mucate—Normal

(NH₄)₂C₆H₈O₈ = 244.17.—Wh. acid. cryst.—SOL.: Diffic. cold, eas. hot W., w. slightly acid react.

Ammonium Nitrate Merck—Reagent

NH₄NO₃ = 80.05.—Colorl. cryst. or wh., gran. powd.—SOL.: Less than 1 W., abt 25 A.—At abt 210° C. decomp. mostly into W. & nitrous oxide.

MAXIMUM OF IMPURITIES

Nonvol. Matter (Ca, Mg, etc.)	0.010%
Free Acid (as HNO ₃)	0.006%
Arsenate (As ₂ O ₅)	0.001%
Chloride (Cl)	0.0005%
Nitrite (N ₂ O ₃)	0.0005%
Phosphate (P ₂ O ₅)	0.0005%
Sulphate (SO ₃)	0.002%
Sulphocyanate (CNS)	0.002%
Iron (Fe)	0.0003%
Other Heavy Metals	0.000%
Tar Bases	0.000%

USES: As oxidizer, especially in combust'n of organic matter; determ. S in coke; determ'g P (Neubauer) by the molybdate method; in molten state as solvent f. metals; reag. f. metals (Loviton).

Ammonium Nitrate Merck—C.P.

NH₄NO₃ = 80.05.—Colorl., hygrosc. cryst., or wh. gran. powd.; sharp, bitter taste.—SOL.: Less than 1 W.; 25 A.—MELT.: Abt. 165° C. At abt 240° C. decomp. into laughing gas (N₂O) & W.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.050%
Chloride (Cl)	0.003%
Nitrite (N ₂ O ₃)	0.001%
Phosphate (P ₂ O ₅)	0.010%
Sulphate (SO ₃)	0.010%
Heavy Metals	0.000%

USES: As of the Reagent (*q.v.*)

do. Merck—Cryst. or Gran.

DESCRIPTION & SOL.: As of preced'g.—ACTION: Refrigerant; Diuret.—USES: Bronchitis; also manuf. laughing gas (nitrogen monoxide, N₂O).—DOSE: 0.5–1.5 Gm. (8–23 grn.).

do. —Technical

Wh. cryst. w. yellowish tinge; eas. bec. moist in air.—SOL.: Eas. W.—USES: Freezing mixtures (100 parts snow + 45 parts HN₄NO₃ = –16.75° C.); safety explosives; matches; manuf. N₂O; pyrotechny; fertilizers.

AMMONIUM-NITROSOBETAPHENYLHYDROXYLAMINE—see Cupferron

Ammonium Oleate—Abt 70%

Ammonia Soap.—NH₄C₁₈H₃₃O₂ = 299.39.—Yellow to brownish ointment-like mass; odor of NH₃.—SOL.: A., E.—USES: Detergent; demonstrating liquid crystals accord. to Lehmann; solidifying alcohol.

AMMONIUM-OSMIC CHLORIDE—see Osmium & Ammonium Chloride

Ammonium Oxalate Merck—Reagent—Cryst.

(NH₄)₂C₂O₄ + H₂O = 142.11.—Colorl. cryst.—SOL.: Abt 25 W.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.025%
Chloride (Cl)	0.002%
Nitrate (N ₂ O ₅)	0.003%
Sulphate (SO ₃)	0.005%
Heavy Metals	0.000%

USES: Detect'g & determ'g Ca & rare metals (Ce, Th, Zr, etc.); separat'g Ca & Sr; ppt'g Pb, Zn, Ba, & Ca, & separat'g them fr. vanadic acid; estimat'g quinine; reag. f. Pb (Abram), & mineral acids (Strohl).

Ammonium Oxalate Merck—C.P.—Cryst.

Diammonium, or Normal Ammonium, Oxalate.—(NH₄)₂C₂O₄ + H₂O = 142.11.—Colorl., cryst.—SOL.: Abt 25 W.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.040%
Chloride (Cl)	0.004%
Sulphates (SO ₃)	0.005%
Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—Pure—Cryst.

DESCRIPTION, & SOL.: As of preced'g.—USES: Manuf. explosives.

Ammonium Oxalurate

NH₂.CO.NH.CO.COONH₄ = 149.10. — Wh., cryst. powd.—SOL.: Eas. hot, W.

Ammonium Oxamate

NH₂.CO.COONH₄ = 106.07.—Fr. NH₃ & alcoh. solut. ethyl oxalate.—Colorl. cryst. powd.—SOL.: v. sltly cold W. & A.—Decomp. at 226° C.

Ammonium Palmitate

Acid Ammonium Palmitate.—NH₄.C₁₆H₃₁O₂.C₁₆H₃₂O₂ = 529.70.—Yellowish, soapy mass or yellow powd.—SOL.: A., E.; insol. cold W.—USES: *Techn.*, water-proofing fabrics; thickening lubricants.

Ammonium Perchlorate

$\text{NH}_4\text{ClO}_4 = 117.50$.—Colorl. cryst.—Sol.: Eas.
W.—Uses: Explosives.

Ammonium Persulphate Merck—Reagent

$(\text{NH}_4)_2\text{S}_2\text{O}_8 = 228.20$.—Colorl. cryst., or wh.,
gran. powd.—Sol.: Eas. in abt 2 W.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.10%
Chloride (Cl).....	0.001%
Heavy Metals.....	0.000%
Manganese (Mn).....	0.0001%

USES: Oxidizer in analysis, & remov'g organic matter; separat'g Cr & Mn, & determ'g these in steel; separat'g Fe, Cr, & Al in mixtures of their hydroxides; separat'g Mn fr. Ni, Cu, & Cd, Co fr. Ni, & Cl fr. Br & I; determ'g Pb; reag. f. salicylic & sulphosalicylic acids (Barral), Pb & Bi (Bollenbach), methyl alcohol (Engelhardt), indican (Klett), Natal aloes (Léger), Mn (Marshall), alkaloids (Orlow-Horst), Co (Pozzi-Escot), albumin (Strzyzowski).

Ammonium Persulphate Merck—C.P.

$(\text{NH}_4)_2\text{S}_2\text{O}_8 = 228.20$.—Colorl. cryst. or wh.,
gran. powd.—Sol.: v. eas. (abt 2) W. Decomp. if kept in moist atmosph., w. liberation of strongly ozonized O.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.20%
Chloride (Cl).....	0.001%
Heavy Metals.....	Trace
Manganese (Mn).....	0.000%

USES: Chem., As of the Reagent, above.—*Medic.*, as Disinfect.; *Deodor.*—*Intern.*, as stimulant of appetite (like sod. persulphate); *extern.*, inst. of potass. permang. in mouth washes.

do. Merck

USES: Oxidizer & bleacher; remov. hypo. & as reducer & retarder in photogr.; in dyeing; manuf. aniline dyes; oxidizer f. copper; etching zinc; decoloriz'g & deodorizing oils; electroplating; washing infected yeast; removing pyrogallol stains; making soluble starch; depolarizer in electric batteries; manuf. o. persulphates; 0.5%–2% solut. as disinf. of comma, erysipelas, streptococcus, staphylococcus aureus, & pyocyaneus bact.; preserv. & deodoriz. because of its oxidizing & bleaching properties.

Ammonium Phenate

Ammonium Phenylate; Ammonium Carbolate.
— $\text{C}_6\text{H}_5\text{O.NH}_4 = 111.11$.—Cryst. masses.—Sol.: W. — ACTION: Antisept.; Antipyr. — DOSE: 0.12–0.36 Gm. (2–6 grn.).

Ammonium Phenolsulphonate

Ammonium Sulphocarbolate, Sulphophenate, or Sulphophenylate. — $\text{C}_6\text{H}_4\text{OHSO}_3\text{NH}_4 = 191.17$.—Wh., cryst.—Sol.: Eas. W.—ACTION: Antisept.—USES: *Intern.*, dyspepsia, phthisis, cholera, typhoid, flatulence, dysent., etc.—*Extern.*, gonorrh. as inj.—DOSE: 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.

AMMONIUM PHENYLATE—see Ammonium Phenate

Ammonium Phosphate Merck—Reagent

$(\text{NH}_4)_2\text{HPO}_4 = 132.13$.—Colorl. cryst. or wh.,
cryst. powd.—Sol.: Abt 4 W.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.001%
Nitrate (N_2O_5).....	0.000%
Monobasic Salt (Reaction to Ph'thalein).....	None
Sulphate (SO_3).....	0.003%
Alkali Salts.....	0.150%
Arsenic (As).....	0.0002%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Detect'g & determ'g Mg, Ni, Zn, & U.

Ammonium Phosphate Merck—Dibasic—C.P.

Secondary Ammonium Phosphate; Hydrogen Diammonium Phosphate; Diammonium Orthophosphate. — $(\text{NH}_4)_2\text{HPO}_4 = 132.13$.—Colorl., odorl., prism. cryst., or wh. cryst. powd.; cooling, saline taste.—Sol.: Abt 4 W.; insol. A.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.005%
Arsenic (As).....	0.000%
Iron (Fe).....	0.002%
Other Heavy Metals.....	Trace

USES: As of the Reagent, above.

do. Merck—Dibasic—Pure—N.F. V, Powd.

DESCRIPTION & SOL.: As of preced'g.—ACTION: Diuret.—USES: Rheum., gout.—DOSE: 0.3–1.3 Gm. (5–20 grn.); av. dose 0.3 Gm. (5 grn.).

do. —Technical

USES: Fertilizer; fireproofing fabrics; impregnating lamp wicks.

Ammonium Phosphate Merck—Monobasic—Reagent

Acid Ammonium Phosphate.— $(\text{NH}_4)\text{H}_2\text{PO}_4 = 115.10$.—Wh., lustr. cryst.—Sol.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.000%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.003%
Alkali Salts.....	0.15%
Aluminum (Al).....	0.000%
Arsenic (As).....	0.0001%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

Ammonium Phosphate Merck—Monobasic—C.P.

Monobasic, or Primary, Ammonium Phosphate; Ammonium Biphosphate.— $(\text{NH}_4)\text{H}_2\text{PO}_4 = 115.10$.—Wh., lustr., cryst.—Sol.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.020%
Arsenic (As).....	0.000%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.001%

do. Merck—Monobasic—Pure

DESCRIPT. & C.: As preced'g.—USES: *Intern.*, in tetanus in adults.—*Techn.*, as baking powd., w. sod. bicarbonate.—DOSE: In tetanus 12–50 Gm. (3–12½ dr.) p.d. in 1.8% solut.; ordinarily, abt 18 Gm. (4½ dr.) in 1 liter (abt 1 qt.) water p.d. suffice.

Ammonium Phosphate—Tribasic

Neutral Ammonium, or Triammonium, Phosphate.— $(\text{NH}_4)_3\text{PO}_4 + 3\text{H}_2\text{O} = 203.21$.—Colorl. cryst., or cryst. powd.; odor of NH_3 .—SOL.: Eas. W.—USES: In nutrient media f. various fungi.—CAUT.: Keep well stopp.; readily gives up ammonia in air, & changes rapidly to $(\text{NH}_4)_2\text{HPO}_4$.

AMMONIUM PHOSPHATE, ACID—see Ammonium Phosphate, Monobasic

AMMONIUM PHOSPHATE, NEUTRAL—See Ammonium Phosphate, Dibasic

AMMONIUM PHOSPHATE, PRIMARY—see Ammonium Phosphate, Monobasic

AMMONIUM PHOSPHATE, SECONDARY—see Ammonium Phosphate, Dibasic

Ammonium Phosphite

Neutral Ammonium Phosphite.— $(\text{NH}_4)_2\text{HPO}_3 + \text{H}_2\text{O} = 134.14$.—Colorl., deliq. cryst. mass.—SOL.: W.—USES: Reducing agent.

Ammonium Phosphomolybdate

Approx. $3(\text{NH}_4)_2\text{O} \cdot \text{P}_2\text{O}_5 \cdot 22\text{MoO}_3 (= 3466.32) + x\text{H}_2\text{O}$.—Yellow, heavy cryst. powd.—SOL.: Alkalies, aqua regia; insol. W.—USES: Detect'g alkaloids (Vrij-Sonnenschein), & K (Schlicht).

Ammonium Phosphotungstate

Ammonium Phosphowolframite.—Approx. $16\text{WO}_3 \cdot 6(\text{NH}_4)_2\text{O} \cdot \text{P}_2\text{O}_5 + 10\text{H}_2\text{O} = 4346.72$.—Wh. powd.—SOL.: Hot W.; eas. alkalies; alm. insol. cold W.

AMMONIUM PHOSPHOWOLFRAMATE—see Ammonium Phosphotungstate

Ammonium Phthalate

$\text{C}_6\text{H}_4(\text{CO}_2\text{NH}_4)_2 = 200.15$.—Wh. cryst.—SOL.: Eas. W.

Ammonium Picramate

$\text{NH}_4\text{O} \cdot (\text{NO}_2)_2\text{NH}_2 \cdot \text{C}_6\text{H}_2 = 216.13$.—Reddish-brown, cryst. powd.—SOL.: W., A.

Ammonium Picrate

Ammonium Piconitrate, or Carbazotate.— $\text{NH}_4\text{C}_6\text{H}_2(\text{NO}_2)_3\text{O} = 246.11$.—Bright yellow scales, or prisms.—SOL.: W., A.—ACTION: Antipyr.; Antiper.—USES: *Intern.*, malarial neural., periodic fevers & headache.—*Techn.*, explosives, fireworks.—DOSE: 0.015–0.1 Gm. (¼–1½ grn.) 3 t.p.d., in pills.—MAX. D.: 0.5 Gm. (8 grn.) p.d.

AMMONIUM PICRONITRATE—see Ammonium Picrate

AMMONIUM PLATINOCYANIDE—see Platinum & Ammonium Cyanide

“AMMONIUM POLYSULPHIDE” SOLUTION—see Solution Ammonium Sulphide, Red

AMMONIUM PURPURATE, ACID—see Murexid

AMMONIUM PYROSULPHITE—see Ammonium Bisulphite

AMMONIUM RHODANIDE—see Ammonium Sulphocyanate

Ammonium Salicylate Merck—U.S.P. X—Powd.

$\text{C}_6\text{H}_4(\text{OH})\text{COONH}_4 = 155.12$.—Wh. odorl., stable cryst., or powd.—SOL.: 1 W., & 3 A. at 25° C.—ACTION: Antirheum.; Antipyr.; Germic.; Expector.—USES: Febrile conditions, bronchitis, artic. rheumat., &c.—DOSE: 0.12–1.3 Gm. (2–20 grn.); aver. dose 1 Gm. (15 grn.).

Ammonium Selenate

$(\text{NH}_4)_2\text{SeO}_4 = 179.12$.—Colorl. cryst.—SOL.: Eas. W.

Ammonium Selenite

$(\text{NH}_4)_2\text{SeO}_3 + \text{H}_2\text{O} = 181.30$.—Colorl. or sltly reddish cryst.—SOL.: Eas. W.—USES: Test. alkaloids (da Silva), & codeine (Lafon); also in glass industry.—CAUT.: Keep fr. light & dust.

AMMONIUM SESQUICARBONATE—see Ammonium Carbonate

Ammonium Silcofluoride

$2\text{NH}_4\text{F} \cdot \text{SiF}_4 = 178.18$. — Wh., cryst. powd.—SOL.: W.—ACTION: Antisept.; Reconstructive.—USES: Tuberc. & diabetes by inhalation.

AMMONIUM SOZOIODOLATE—see Soziodole-Ammonium

Ammonium Stearate

$\text{CH}_3(\text{CH}_2)_{16}\text{COONH}_4 = 301.42$. — Soapy, wh. mass., or wh. to yellowish powd.—SOL.: Hot A.; diffic. W.—USES: Manuf. various stearates (Al, Zn, etc.).—NOTE: The preparation, even at ord. temp., grad. evolves NH_3 , hence it has not always the exact formula given above.

Ammonium Succinate

$\text{NH}_4\text{COO} \cdot \text{CH}_2 \cdot \text{CH}_2 \cdot \text{COONH}_4 = 152.13$. — Colorl. cryst.—SOL.: W., A.—ACTION: Diuret.; Diaphoretic.—USES: *Intern.*, (us'y as Liquor Ammonii Succinatis) in spasmodic pains, painful labor, spastic uterine contractions, & delirium tremens.—DOSE: 0.1 Gm. (1½ grn.) ev. 15 min, till relief; 0.12–0.3 Gm. (2–5 grn.) Mart.—CAUT.: Keep well stoppered.

AMMONIUM SULPHAMINBARBITURATE—see Ammonium Thionurate

Ammonium Sulphate Merck—Reagent

$(\text{NH}_4)_2\text{SO}_4 = 132.14$.—Colorl. cryst. or wh. granules.—SOL.: Abt 2 W.; insol. A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.010%
Free Acid (as H_2SO_4).....	0.005%
Chloride (Cl).....	0.0005%
Nitrate (N_2O_5).....	0.001%
Phosphate (P_2O_5).....	0.000%
Sulphocyanate (CNS).....	0.008%
Arsenic (As).....	0.000%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Pptng albuminoids & urates; with $(\text{NH}_4)_2\text{C}_2\text{O}_4$ f. separat'g Ca & Sr; transposing organic acids in analysis of their salts; standard in N determ'n; reag. f. phosphates (Lorenz; Neubauer).

Ammonium Sulphate Merck—C.P.

$(\text{NH}_4)_2\text{SO}_4 = 132.14$.—Colorl. cryst.—SOL.: Abt 2 W.; insol. in A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.002%
Phosphate (P_2O_5).....	0.001%
Sulphocyanate (CNS).....	0.008%
Arsenic (As).....	0.001%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Pure

DESCRIPTION, & SOL.: As of preced'g.—MELT.: Abt 140°C .; (decomp. abt 260°C . B.P.C.).—ACTION: Mild saline aperient.—USES: Laxative (rarely).—*Techn.*, salting out albuminous substs fr. solution.—DOSE: 0.3–1.2 Gm. (5–15 grn.).

do. Merck—Technical

Sltly gray cryst.—SOL.: As of preceding.—USES: Fertilizer; manuf. NH_3 , ammonia alum, & o. NH_3 salts; freeing H_2SO_4 fr. nitrogen oxides; freezing mixtures; fireproofing fabrics; manuf. viscose silk.

AMMONIUM SULPHATE, ACID—see Ammonium Bisulphate

AMMONIUM SULPHETHYLATE—see Ammonium Ethylsulphate

Ammonium Sulphide—Cryst.

Ammonium Sulphydrate; Ammonium Hydrogen Sulphide; Ammonium Hydrosulphide.— $(\text{NH}_4)\text{HS} = 51.11$.—True ammonium sulphide, $(\text{NH}_4)_2\text{S}$, is stable only below 0°C ., & eas. dissociates into $(\text{NH}_4)\text{HS}$ & NH_3 ; the sulphhydrate, $(\text{NH}_4)\text{HS}$, on the other hand, eas. oxidizes, becoming yellow, w. form'n of polysulphides of unknown compos., & sulphite w. thiosulphate.—Colorl., v. hygrosc. & eas. volat. cryst.; odor of NH_3 & H_2S .—SOL.: A.; v. eas. W.—USES: Group reagent in solut.; also techn., for denitrating nitrocellulose; making the so-called "oxidized silver" ware; finishing textiles; manuf. intermediates.—CAUT.: Keep well stoppered.

AMMONIUM SULPHIDE SOLUTION—see Solution Ammonium Sulphide

Ammonium Sulphite Merck—Cryst.

$(\text{NH}_4)_2\text{SO}_3 + \text{H}_2\text{O} = 134.16$.—Colorl., deliq. cryst.; acrid, sulphurous taste.—SOL.: W. (solut. strongly alkaline).—Subl. at high temp.—USES: *Chem.*, as reducer.—*Medic.*, as antisept. in fermentative dyspep. & skin dis.—*Techn.*, in synthesis of intermediates; manuf. nitrogen for making calcium carbide.—DOSE: 0.3–1.3 Gm. (5–20 grn.).—APPL.: 5%–10% solut.—CAUT.: Keep well stoppered.

AMMONIUM SULPHOCARBAMINATE, NORMAL—see Ammonium Diithiocarbamate

AMMONIUM SULPHOCARBOLATE—see Ammonium Phenolsulphonate

Ammonium Sulphocarbonate—10% Aqu. Solut.

Ammonium Thiocarbonate or Trithiocarbonate Solution.— $(\text{NH}_4)_2\text{S}_2\text{CS} = 144.27$.—Fr. ammon. carbonate & CS_2 .—Yellow to yellowish-red liq.; odor of ammon. sulphide.—Misc.: A.—USES: As insecticide on plants.

Ammonium Sulphocyanate Merck—Reagent

Ammonium Thiocyanate.— $\text{NH}_4\text{SCN} = 76.11$.—Colorl., deliques. cryst.—SOL.: Less than 1 W., eas. A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.025%
Substs Insol. in Alcohol....	0.000%
Sulphate (SO_3).....	0.005%
Chloride (Cl).....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%

USES: In forensic & other anal. for detect'g & determ'g sm. quant. As, Sb, Hg, Ag, Cu, halogens, & mustard oil; reag. f. alcohol (Azzarello), CuSO_4 (Ling-Rendle), Fe (Mayer).

Ammonium Sulphocyanate Merck—C.P.

Ammonium Sulphocyanide, Thiocyanate, or Rhodanide.— $(\text{NH}_4)\text{SCN} = 76.11$.—Fr. CS_2 , A., & strong NH_4OH .—Colorl., deliq. cryst.—SOL.: Eas. W., A.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.020%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: *Chem.*, As of the Reagent, above.—*Medic.*, as of sodium sulphocyanide.

do. Merck—Pure

DESCRIPTION, &c.: As of the preced'g.—USES: *Techn.*, as fertilizer; dyeing; matches; also f. double staining; photography; improving & increas'g strength of silks weighted w. tin salts; to produce grayish-black coating on Zn; manuf. cyanides & explosives; in organic syntheses.—CAUT.: Keep well stoppered.

AMMONIUM SULPHOCYANIDE—see Ammonium Sulphocyanate

AMMONIUM "SULPHOICHTHYOLATE"—see Ichthyol

AMMONIUM SULPHOPHENATE } see Ammonium
AMMONIUM SULPHOPHENYLATE } Phenolsulphonate

Ammonium Sulphoricinate

Yellow liq.—SOL.: Eas. A.—ACTION: Antisep.; Deodor.—USES: *Extern.*, skin dis., tuberc. or o. ulcerat. muc. memb. in 20% solut.

Ammonium Sulphotellurate

Bronciner's Solution.—Prep. by trit. 1 Gm. ammonium tellurate w. 20 cc. H_2SO_4 .—USES: Test f. certain physiologically active plant con-

stituents, (e.g., digitalin gives w. the prep'n a reddish-blue color; narceine, a yellow, then dirty-green, & finally violet; narcotine, a transitory pink; apomorphine, a violet after a short time; chelidonium, a green color in 3-4 min.).

AMMONIUM SULPHOVINATE—see Ammonium Ethylsulphate

AMMONIUM SULPHYDRATE—see Ammonium Sulphide

AMMONIUM SULPHYDRATE, SOLUTION—see Solution Ammonium Sulphide

Ammonium Tartrate—Neutral—C.P.

$\text{COONH}_4 \cdot \text{CHOH} \cdot \text{CHOH} \cdot \text{COONH}_4 = 184.13$.—Colorl. cryst.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.001%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: *Medic.*, as expector.—*Extern.*, in 5% to 10% & ultimately 20%, aq. solut. in calcareous corneal opacities.—DOSE: 0.3-2 Gm. (5-30 grn.).

AMMONIUM TARTRATE, ACID—see Ammonium Bitartrate

AMMONIUM TARTRATE, FERRIC—see Iron & Ammonium Tartrate

Ammonium Tellurate

$\text{NH}_4\text{HTeO}_4 + 2\text{H}_2\text{O} = 246.58$.—Wh. powd.—SOL.: Dil. acids.—USES: Test (1:20 in conc. H_2SO_4) f. digitalin, narceine, & apomorphine.

AMMONIUM THIOCARBONATE SOLUTION—see Ammonium Sulphocarbonate, Solution

AMMONIUM THIOCYANATE—see Ammonium Sulphocyanate

Ammonium Thionurate

Ammonium Sulphaminbarbiturate.— $(\text{NH}_4)_2 \cdot \text{C}_4\text{H}_3\text{N}_3\text{SO}_6 + \text{H}_2\text{O} = 275.22$.—Fr. alloxan & $(\text{NH}_4)_2\text{SO}_3$.—Wh. cryst.—SOL.: Sltly cold, eas. hot, W.

Ammonium Thiosulphate Merck

Ammonium Hyposulphite. — $(\text{NH}_4)_2\text{S}_2\text{O}_3 = 148.20$.—Colorl. cryst.—SOL.: Eas. W.—ACTION: Antisep.—USES: *Techn.*, as group reagent. (Orlowski); also in fotogr. as fixing agent.—DOSE: 0.3-2 Gm. (5-30 grn.) in water.

AMMONIUM TRIPHENYLOSANILINESULPHONATE—see Poirrier Blue C4B

AMMONIUM TRITHIOCARBONATE SOLUTION—see Ammonium Sulphocarbonate, Solution

Ammonium Tungstate

Ammonium Wolframate.— $5(\text{NH}_4)_2\text{O} \cdot 12\text{WO}_3 + 12\text{H}_2\text{O} = 3260.59$.—Wh., cryst. powd.—SOL.: W.; eas. dil. alkalies.

"Ammonium Uranate" Merck

"Uranium Oxide Hydrated"; also improperly "Uranium Yellow."—Sodium Uranate is the

true Uranium Yellow.— $(\text{NH}_4)_2\text{U}_2\text{O}_7 = 624.48$.; cont's some aq.—Reddish-yellow, amorph. powd.—SOL.: Acids.—USES: In syphilis; also in itritis & double nephritis.—*Techn.*, as test f. alkaloids, (Bronciner); & f. painting (black) on porcelain.—DOSE: 1 cc. (15 M) of a 5% suspens. in sterilized liq. petrolatum subcut. or intramusc. ev. few days.

Ammonium Urate

Acid Ammonium Urate.— $(\text{NH}_4)\text{C}_5\text{H}_3\text{N}_4\text{O}_3 = 185.12$.—Wh., cryst. powd.—SOL.: Alkalies, & conc. H_2SO_4 ; alm. insol. W.—ACTION: Antisep.—USES: *Intern.*, catarrhal affections of the respiratory & digestive organs; grippé, coughs, etc.—*Extern.*, as 4% oint. in exanthema, impetigo, chron. eczema, etc.—DOSE: 0.06 Gm. (1 grn.) per day; children, 0.03 Gm. ($\frac{1}{2}$ grn.) per day.

Ammonium Valerate Merck—N.F. V

Ammonium Valerianate.—Acid salt of somewhat variable compos.—Colorl., deliq. plates; valerian odor; sharp, sweet taste.—SOL.: 0.3 W., 0.6 A., at 25° C.; E.—ACTION: Nerve Tonic.—USES: Nerv. headache or insom., hyst., epilepsy, chorea, neuralg.—DOSE: 0.12-0.6 Gm. (2-10 grn.), sev'l t.p.d.; av. dose, 0.5 Gm. (8 grn.); 1-4 Gm. (15-60 grn.) per day.—CAUT.: Keep well stoppered.

AMMONIUM VALERIANATE—see Ammonium Valerate

Ammonium Vanadate Merck

Ammonium Metavanadate.— $\text{NH}_4\text{VO}_3 = 117.04$.—Wh. to sltly yellowish cryst. powd.—SOL.: W.—USES: Test. f. sesame oil (Bellier; Tocher), tannins (Cavazza), SCN (Elram), saccharose (Gawalowski), alkaloids (Johannson; Kundrat; Mandelin), gallic acid (Lemaire), & morphine (Richard).—*Techn.*, printing on woollens, manuf. vanadium black & "indelible ink"; dyeing textiles & wood black; producing the vanadium luster on pottery.

AMMONIUM WOLFRAMATE—see Ammonium Tungstate

AMMONIUM ZIRCONIFLUORIDE—see Zirconium & Ammonium Fluoride

AMMONIUM & IRON TARTRATE—see Iron & Ammonium Tartrate

Amomum Melegueta—B.P.C.

Grains of Paradise; Guinea Grains; Melegueta Pepper; Paradise Seed.—Seed of Amomum Melegueta, Roscoe, Zingiberaceæ.—HABIT.: Ceylon; tropical western coast of Africa.—CONSTIT.: Volat. oil (abt 0.3%); fixed oil; acrid resin; paradol; tannin.—USES: Spice; also in veterinary practice.

Ampelopsin (Eclectic)

Concentration fr. bark & twigs Ampelopsis quinquefolia, Mich. (Virginia creeper).—SOL.: W., A.—ACTION: Alter.; Tonic; Expector.—USES: Colds, syph., dropsy, &c.—DOSE: 0.12-0.25 Gm. (2-4 grn.).

AMPHIBOLE, COMMON—see Hornblende

Amphotropin

Hexamethylenamine, or Methenamine, Camphorate.— $C_8H_{14}(COOH)_2 \cdot ([CH_2]_6N)_2 = 480.49$.—Wh., cryst. powd.—SOL.: 10 cold, more eas. hot, W. (solut. acid); also A., C.; alm. insol. E., B.—ACTION: Urinary Antisep.—USES: Bacteriuria, chron. & subac. cystitis, pyelitis, nephritis.—DOSE: 0.5–1 Gm. (8–15 grn.).

AMPYDIN = AMIDOPYRINE

AMYDRICAIN HYDROCHLORIDE—see Alypin

AMYGDALASE—see Emulsin

Amygdalin Merck

$C_{20}H_{27}NO_{11} + 3H_2O = 511.37$.—Fr. seeds Amygdalaceae, Drupaceae, & Pomaceae, princip. fr. almonds.—Wh., stlty bitter cryst.—SOL.: 12 cold, freely in boil., W.; A.; insol. E.—MELT.: Abt 200° C., B.P.C.—ACTION: Expector.; Demulc.—DOSE: 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.).—MAX. D.: 0.03 Gm. ($\frac{1}{2}$ grn.) single; 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.—CAUT.: Keep well stoppered.

iso-Amyl Acetate Merck—Pure

Amylacetic Ester.— $CH_3.COO.C_5H_{11} = 130.15$.—Fr. iso-amyl A. by H_2SO_4 & glac. acetic acid.—Colorl., neutral, v. mobile liq.; arom., pear-like odor & taste.—SOL.: Eas. A., E., & acetic ether, amyl A.; alm. insol. W.—SP. GR.: 0.866–0.869 at 15° C.—BOIL.: Abt 138° C.—USES: In alcohol, solut. as a pear flavor (pear oil); manuf. mineral waters & syrups.

do. Merck—Technical

Pear Oil; Banana Oil.—Colorl., neutral, v. mobile liq.—SOL.: As preced.—SP. GR.: 0.865–0.876 at 15° C.—BOIL.: Abt 138° C.—USES: Solvent f. lacquers, celluloid & camphor; swelling bath sponges; covering unpleas. odors (e.g. of cresol); perfuming shoe polish; manuf. artif. silk, waterproof varnishes, artif. leather, artif. pearls, photographic films, celluloid cements; dyeing & finishing textiles.—NOTE: Under the name "pear oil" there is also mkt'd a mixt. of 10 amyl acetate & 1 ethyl acetate & 90 A.

do. —For the Hefner Lamp

DESCRIPTION & SOL.: As of Amyl Acetate, Pure.—SP. GR.: 0.869 at 15° C.—BOIL.: 138° C.—USES: For burning in the Hefner lamp which serves as a photometric standard.

AMYL ALCOHOL—see Alcohol Amylic

AMYL ALCOHOL, TERTIARY—see Amylene Hydrate

AMYL AMIDOFORMATE—see iso-Amyl Urethane

iso-Amyl Benzoate

Isoamylbenzoic Ester.— $C_6H_5.COO.C_5H_{11} = 192.19$.—Fr. amyl A. & ethyl benzoate.—Colorl. liq.; neutral to moist litmus paper.—SOL.: A.; insol. W.—SP. GR.: 0.992–0.995 at 15° C.—BOIL.: Abt 262° C.—USES: In perfumery & cosmetics.

iso-Amyl Bromide Merck

$(CH_3)_2CH.CH_2.CH_2Br = 151.03$.—Fr. iso-amyl A. by Br & P.—Clear, colorl. liq.; neutral to moist litmus paper.—SOL.: Eas. A., E.—SP. GR.: 1.200–1.205 at 15° C.—BOIL.: Abt 120° C.—ACTION: Germicide; Antisep.; stlty Anesthetic.

iso-Amyl Butyrate—Technical

Isoamylbutyric Ester.— $CH_3(CH_2)_2.COOC_5H_{11} = 158.19$.—Fr. isoamyl A., H_2SO_4 , & butyric acid.—Colorl. liq.; arom. odor; neutral or at most stlty acid to moist litmus paper.—SOL.: A.—BOIL.: 178° C. when pure.—SP. GR.: 0.850–0.860 at 15° C.—USES: Flavoring liqueurs & bonbons; as intermediate in organic synthesis.

iso-AMYL CARBAMATE, or CARBAMINATE—see iso-Amyl Urethane

iso-Amyl Chloride Merck

$(CH_3)_2CH.CH_2.CH_2Cl = 106.57$.—Fr. isoamyl A. & HCl.—Colorl. liq.; neutral to moist litmus paper.—SOL.: Eas. A.—BOIL.: Abt 100° C.—SP. GR.: 0.873–0.874 at 15° C.

iso-Amyl Cyanide

iso-Capronitrile.— $(CH_3)_2CH.(CH_2)_2CN = 97.13$.—Nitrile of one of the hexoic acids obt'd fr. KCN & isoamyl chloride.—Colorl. liq.; v. disagr. odor.—SOL.: A.—BOIL.: Abt 155° C.—SP. GR.: 0.806 at 20° C.

iso-Amyl Formate Merck

$C_5H_{11}.CHO_2 = 116.13$.—Fr. fusel oil, G., & oxalic acid.—Colorl. liq.—SOL.: A.—BOIL.: Abt 123° C.—SP. GR.: 0.877 at 15° C.—USES: Artif. fruit syrups; manuf. intermediates.

AMYL HYDRIDE—see Pentane

AMYL HYDROSULPHIDE—see iso-Amyl Sulphhydrate

iso-Amyl Iodide Merck

Iodamyl; 4.Iod-2.Methylbutane.— $(CH_3)_2C.H.CH_2.CH_2I = 198.03$.—Fr. isoamyl A., I, & P.—Colorl. liq.; neutral to litmus paper; eas. bec. yellow to brown on expos. to light.—SOL.: A.—SP. GR.: 1.49–1.51.—BOIL.: Abt 149° C.—ACTION: Sed.; Antisep.—USES: Intern., in purulent dis. of intestinal tract, & in diarrh.; v. slt anesthetic properties.—Extern., inst. of iodine in 10% oint. Also by inhal. in dyspnea & heart affect.—Techn. manuf. dyes.—DOSE: 0.5 cc. (8 M) 3 t.p.d.; in severe cases, ev. 2 hrs.

iso-Amyl Nitrate Merck

$(CH_3)_2CH.CH_2.CH_2.O.NO_2 = 133.12$.—Fr. iso-amyl A., HNO_3 & urea.—Colorl. liq.; neutral to moist litmus paper.—SOL.: v. eas. A., E.—BOIL.: Abt 148° C.—CAUTION: Heated above boil.-point, decomp. & explodes!—SP. GR.: 0.992–0.993 at 15° C.—USES: Formerly in trigeminal neuralgia; also in malaria.—(N.B.—Often ordered or written by mistake when *Amyl Nitrite* is intended. Therefore be careful when intending the *Nitrate* to state that the *Nitrite* is not meant).

iso-Amyl Nitrite Merck—U.S.P. X

$(\text{CH}_3)_2\text{CH}.\text{CH}_2.\text{CH}_2.\text{O}.\text{NO} = 117.12$. — Fr. iso-amyl A. & HNO_2 .—Yellowish, transp., v. diffusive, inflam., unstable liq.; penetr., fragrant odor; orange vapor.—Decomp. on expos. to air, light, & W.—Misc.: A., E.; alm. insol. W.—BOIL.: (Of "absolute" prep'n) 95° – 97° C.—Sp. Gr.: 0.865–0.875 at 25° C., U.S.P.; (0.870–0.880 at 15.5° C., B.P.).—ACTION: Antispasm.; Depressomotor; Vasodilator.—USES: Diagnosing arteriosclerosis; angina pectoris; tobacco angina, hiccough, asthma, tetanus, epilepsy, syncope, tremor, uterine hemor.; pulmonary hemopt. by inhal.; dyspnea of Bright's dis., lightning pains of tabes, convulsions, hysteria; malaria; lead colic; seasickness; menorrhagia. Antid. to cocaine, opium, chloral hydrate, strychnine, & chloroform asphyxia; also in tests f. phenol (Gutzkow), thiophene (Claisen), & oil chenopodium (Kremers).—Techn., in perfumery, & manuf. diazo & nitroso compds.—DOSE: 2–5 drops in brandy, or 1–3 drops by inhal. fr. hdkf.; aver. dose by inhal. 0.2 cc. (3 M); in biliary colic 0.25–0.5 cc. (4–8 M) in capsules, ev. 30 min.; in hiccough, 3 drops; in lightning pains of tabes, 1 cc. (15 M) of 1% hydro-alcoholic solut. ev. day f. 10 days, rest 10 days, then resume with double dose.—INCOMP.: Alcohol, antipyrine, KOH, NaOH, alkaline carbonates, KI, bromides, & ferrous salts.—ANTID.: Atropine, ergotin, caffeine & camphor, or strychnine, hypoderm.; emetics; artif. respiration; maintain recumbent position.—CAUT.: Must be used w. caution, as it causes violent congestions & heart-beating; keep in dark amber bot. & away fr. fire & light.—Often misnamed "Amyl Nitrate."

N. B.—Amyl Nitrite is so very volatile that it is practically impossible to so stopper bottles that they will carry it without loss, especially in warm weather. Ordered in cool weather and kept in a cool place, the loss is not material, but if kept in a warm place, or if agitated much so as to keep up any pressure of the vapor within the bottle, the loss will be considerable.

iso-Amyl Oxide

Isoamylc, or Diamyl, Ether.— $(\text{CH}_3)_2\text{CH}.\text{CH}_2.\text{CH}_2.\text{O} = 158.23$.—Fr. isoamyl A. & iodide by heat.—Colorl., neutr. liq.; pleas., fruity odor.—Misc.: Eas. A., E., C.; insol. W.—Sp. Gr.: 0.781 at 15° C.—BOIL.: 172° C.—USES: Solvent in Grignard react.; also as solvent f. fats, odorous principles, alkaloids, etc.; manuf. lacquers.

iso-Amyl Propionate

$\text{C}_5\text{H}_{11}.\text{C}_3\text{H}_7\text{O}_2 = 144.17$. — Colorl. liq.—Misc.: A., E.—BOIL.: Abt 160.2° C.—Sp. Gr.: 0.867 at 15° C.

AMYL RHODANIDE—see iso-Amyl Sulphocyanate

iso-Amyl Salicylate Merck

$\text{C}_6\text{H}_4(\text{OH}).\text{COO}.\text{C}_5\text{H}_{11} = 208.19$. — Fr. salicylic acid in amyl A. by HCl.—Colorl. to yellowish liq.; neutral, or at most sltly acid to moist litmus paper.—Sol.: v. eas. A., E., C.; insol. W.—Sp. Gr.: 1.050–1.055 at 15° C.—BOIL.: Abt 285° C.—ACTION: Antirheum.—USES: Intern.,

rheum.—Extern., in biliary colic, & in rheum. 2–3 cc. (30–45 M) painted on & covered w. a bandage to prevent evap'n.—Techn., in perfumery.—DOSE: 0.2 cc. (3 M), in gelat. caps. 10 t.p.d.

Amyl Silicate

Tetramyl Silicate. — $(\text{C}_5\text{H}_{11}\text{O})_4\text{Si} = 376.55$. — Colorl. liq.; neutral to litmus paper.—Sol.: Absol. A., E.—Sp. Gr.: 0.888 at 15° C.—BOIL.: 322° – 325° C.; 170° – 171° C. at 10 mm.

iso-Amyl Sulphide

$(\text{C}_5\text{H}_{11})_2\text{S} = 174.24$. — Fr. amyl chloride by alcohol. KHS.—Colorl. to sltly yellowish liq.; neutral to moist litmus paper.—Sol.: A.—BOIL.: 215° C.—Sp. Gr.: 0.843–0.848 at 15° C.

iso-Amyl Sulphocyanate

Amyl Rhodanide.— $\text{C}_5\text{H}_{11}\text{CNS} = 129.19$. — Fr. potass. amylsulphate & KSCN.—Colorl. liq.—Sol.: A., E.; alm. insol. W.—BOIL.: Abt 197° C.—Sp. Gr.: 0.909 at 15° C.

iso-Amyl Sulphhydrate

Isoamyl Mercaptan; Amyl Hydrosulphide.— $\text{C}_5\text{H}_{11}\text{SH} = 104.18$. — Fr. $\text{C}_5\text{H}_{11}\text{KSO}$ & KHS.—Colorl. liq.; repulsive odor.—Sol.: A., C., E., & o. organ. solvents.—BOIL.: 120° C.—Sp. Gr.: 0.840–0.843 at 15° C.

iso-Amyl Urethane

Amyl Amidoformate; iso-Amyl Carbamate, or Carbamate.— $\text{C}_5\text{H}_{11}\text{O}.\text{CO}.\text{NH}_2 = 131.14$.—Fr. amyl A. & cyanic acid.—Wh. or sltly yellowish cryst. leaflets.—Sol.: A., E., boil. W.—MELT.: Abt 64° C.—BOIL.: 220° C.

iso-Amyl iso-Valerate—Pure

IsoamylValerianate.— $\text{C}_5\text{H}_{11}.\text{COO}.\text{CH}_2.\text{CH}.\text{CH}_2 = 172.21$.—Fr. amyl A., H_2SO_4 , & valeric acid.—Colorl. liq.; neutral to moist litmus paper.—Sol.: A., E.—Sp. Gr.: 0.860–0.865 at 15° C.—BOIL.: Abt 190° C.—ACTION: Sedat.—USES: Intern., biliary colic, dyspnea of angina pectoris, hysteria, & alcohol. delirium; also gastralgic crisis, intercostal neuralg., musc. rheum.—Techn., flavor., as "Apple Essence."—DOSE: In biliary colic, 0.2 cc. (3 M) ev. half hr in gelat. caps. till relief; otherwise 1.3 cc. (20 M) p. d. in doses of 0.2 cc. (3 M).

do. Merck—Technical

Apple Oil.—Colorl. liq.; neutral to moist litmus paper.—Sol.: A., E.—Sp. Gr.: 0.850–0.870 at 15° C.—BOIL.: 150° – 190° C.—USES: Techn., flavoring liqueurs & candy.

AMYLACETIC ESTER—see iso-Amyl Acetate

iso-Amylamine

Isobutylcarbylamine. — $(\text{CH}_3)_2\text{CH}.\text{CH}_2.\text{CH}_2.\text{NH}_2 = 87.14$.—Fr. isoamyl cyanate & KOH.—Colorl. or sltly yellowish liq.; penetrating, strongly ammoniacal odor.—Sol.: W., A., C., E.—BOIL.: 95° C.—Sp. Gr.: 0.755–0.760 at 15° C.

iso-Amylamine Hydrochloride

$\text{C}_5\text{H}_{11}.\text{NH}_2\text{HCl} = 123.61$. — Wh. cryst.—Sol.: W.—ACTION: Antipyr.—USES: Fever; lowers the temperature, & the force & frequency of pulse.—DOSE: 0.4–1 Gm. (7–15 grn.).

Amylcarbamide—Tertiary

Tertiary Amylurea, or Isoamylurea.— $C_5H_{11}-CO(NH_2)NH=130.16$.—Fr. amylcarbimide & NH_3 .—Needles.—SOL.: Sltly W.—MELT.: Abt $151^\circ C$.

Amylene

Betaisoamylene; Trimethylethylene; Pental.— $(CH_3)_2C:CH(CH_3)=70.11$.—Fr. fusel oil & $ZnCl_2$.—Colorl., v. mobile, highly inflam. liq.; disagr. odor.—MISC.: A., E.; alm. insol. W.—BOIL.: $35^\circ-38^\circ C$.—SP. GR.: Abt 0.666 at $15^\circ C$.—USES: Dental anesth., cautiously in quant. of 10–12 cc. ($2\frac{1}{2}$ –3 fl. dr.).—CAUT.: Highly inflammable.

"AMYLENE BROMIDE"—see Bromamylene

Amylene Hydrate Merck—Ph. G. V—Pure

Tertiary Amyl Alcohol; Dimethylethylcarbinol.— $(CH_3)_2C(C_2H_5)OH=88.12$.—Fr. amylene & H_2SO_4 at $0^\circ C$.—Colorl., clear, volat. liq.; characteristic odor & burning taste.—SOL.: 8 cold W.; misc. A., B., C., E., G., oils.—BOIL.: Abt $101^\circ C$.—MELT.: $-12^\circ C$.—SP. GR.: 0.815–0.820 at $15^\circ C$.—ACTION: Hypn.; Sed.; without effect on heart.—USES: Insomnia, alcohol, excitement, epilepsy, whoop-cough, enuresis, diabet. insip. (1 cc. [15 M] morn. & eve. to reduce thirst); also in jaundice & itching of the skin.—DOSE: *Hypn.*, 2–4 cc. (30–60 M); *sed.*, 1–2 cc. (15–30 M) in capsules.—MAX. D., 8 cc. (2 fl. dr.).—*Extern.*, as enema (5:50 W. + 20 mucil. acacia).—By intramusc. inj., 3–4 cc. (45–60 M) in eclampsia gravidarum.—CAUT.: Keep in well-stoppered, amber bot.

AMYLENECHLORAL—see Dormiol

AMYLENE-HYDRATE ISOVALERATE—see Valamin

iso-AMYLHYDROCUPREINE—see Eucupin Base

AMYLOCAINE HYDROCHLORIDE—see Stovaine

AMYLODEXTRIN }
AMYLOGEN } see Starch, Soluble

Amylopsin

Animal Diastase.—Starch-digesting principle of pancreatic juice.—One part said to convert 250 parts starch into dextrose in 3 hrs. It acts best at abt $40^\circ C$. & in a sltly alkaline medium; even a slt acidity checks the action & destroys the ferment.

AMYLUM—see Starch

AMYLUREA, TERTIARY—see Amylcarbamide

ANAESTHESIN—see Ethyl Aminobenzoate

Anaesthol (Weidig)

Mixt. of 17% ethyl chloride, 35.89% chloroform, & 47.1% ether.—Colorl. liq.—SP. GR.: 1.045.—BOIL.: $40^\circ C$.—USES: Anesthesia.

Anagyrine Hydrobromide

$C_{14}H_{18}N_2O_2.HBr=327.20$.—Salt of alkaloid fr. *Anagryis foetida*.—Colorl. to sltly yellowish cryst.—SOL.: W., A.—ACTION: Cardiac Poison.—USES: As cardiac tonic.

Analgen

Quinalgen (B.P.C.); Chinalgen; Labordin; Orthoethoxyanamonobenzoylaminoquinoline; Benzoylamino-ethoxyquinoline; Benzanalgen.— $C_9H_5.(OC_2H_5).NH.(CO.C_6H_5)N=292.23$.—Ortho-oxyquinoline deriv.—Colorl., tastel., odorl. cryst.—SOL.: v. spar. cold, more eas. in hot, A.; C., dil. mineral acids; insol. W., alm. insol. E.—MELT.: $208^\circ C$. B.P.C.—ACTION: Antipyr.; Analg.; Antirheum.—USES: Neural., tabes dorsalis, & paralysis agitans; rheum., febrile dis.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.—MAX. D.: 1 Gm. (15 grn.) single; 3 Gm. (45 grn.) per day.

ANALGESINE—see Antipyrine

ANARCOTINE—see Narcotine

ANCHUSA—see Alkanet

Anchusa

Ox-tongue; Garden Alkanet; Bugloss.—Lvs & tops of *Anchusa officinalis*, L., Boraginæ.—HABIT.: Europe.—CONSTIT.: Pectin; cynoglossine.—ACTION: Emoll.; Expector.; Aperient; Diuret.; Diaphor.—DOSE: 1–4 Gm. (15–60 grn.).

ANCHUSIN—see Extract Alkanet

ANCHUSIN PAPER—see Alkannin Paper

Andalusite—Mineral

Chiastolith.—COMPOS.: $SiO_4Al(AIO)$.—CRYST. SYST.: Rhomb.—LUSTER: Vitr., often weak.—COLOR: Brownish red or pearl gray, somet. whitish, violet & dull green.—STREAK: Wh.—HARDN.: 7.5.—SP. GR.: 3.16–3.20.—USES: As a refractory; manuf. porcelain cores of spark plugs.

Andrographis—B.P.C.

Dried plant *Andrographis paniculata*, Nees, Acanthaceæ.—HABIT.: India, Ceylon, Java.—CONSTIT.: Non-basic bitter principle.—USES: Bitter tonic.—DOSES: Infus. (1:20), 15–30 cc. (4–8 fl. dr.).—Conc. Liq. (1:2), 2–4 cc. (30–60 M).—Tr. (1:10), 2–4 cc. (30–60 M).

ANEMONE CAMPHOR—see Anemonin

Anemonin Merck

Anemone, or Pulsatilla, Camphor.— $C_{10}H_8O_4=192.11$ (Beckurts).—Fr. *Anemone Pulsatilla*, L., & o. Ranunculaceæ.—Need. or leaflets, volat. by steam; the vapors have a burning taste, & irritate the mucous membranes.—SOL.: Eas. boil. A., methyl A., C., ethyl acetate; more diffic. B., fatty oils, & boil. W.; sltly E., ligroin. Eas. in aqu. alkalies w. deep yellow color.—MELT.: Abt $153^\circ C$, to a pale yellow liq.—ACTION: Antispasm.; Anticatarrhal; Antitussic; Emmenag.; Sed.; Anod.—USES: Asthma, bronch. & whoop-cough; dysmenor.; orchitis, oöphoritis & o. painful affect. of female pelvis.—DOSE: 0.015–0.05 Gm. ($\frac{1}{4}$ – $\frac{3}{4}$ grn.) 2 t.p.d.—MAX D.: 0.1 Gm. ($1\frac{1}{2}$ grn.) single, 0.2 Gm. (3 grn.) p.d.

Anesthaine

Dimethylaminobenzoylpentanol Hydrochloride.—**ACTION:** Loc. Anesth.—**USES:** As 2%–3% solut. in opening boils & felons, evacuating abscess cavities, extracting teeth, suturing wounds, operations on eye, nose, & throat, etc.

Anethol Merck—Liquid—N.F. IV

Anise camphor; Parapropenylalcohol Methyl Ester; Paramethoxypropylbenzene; Parallylphenylmethylic Ester.— $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{OCH}_3 = 148.15$.—Chief constit. of anise, star anise, & fennel, oils.—Colorl. or faintly yellow, highly refractive liq. at 23° C.—**SOL.:** 2 A., eas. C., E.; alm. insol. W.—**SP. GR.:** 0.984–0.986 at 25° C.—**SOLIDIF.:** 20°–21° C., & remelts at 22°–23° C.—**BOIL.:** 235°–236° C.—**USES:** Inst. of oil anise, espec. in southern climates; manuf. anisaldehyde; imbedding material in microscopy; in perfumery, partic. f. soap & dentifrices; sensitizer in bleaching colors in color photograph.; test f. lignin (Czapek).—**DOSE:** Aver., 0.1 cc. (1½ M).

ANETHOLQUININE—see Quinine Anisate

Anethum—B.P.

Garden Dill; Dill Seed or Fruit.—Dried ripe fruit of *Anethum graveolens*, L. (*Peucedanum graveolens*, Benth. & Hook.), *Umbelliferae*.—**HABIT.:** Asia Minor; cultiv. in Europe; introduced in the U.S.—**CONSTIT.:** Volat. (3%–4%) & fixed oils.—**ACTION:** Carmin.; Galactagogue; Stim.; Stomachic; used also as spice.—**DOSE:** 0.6–2 Gm. (10–30 grn.).

Angelica—Fruit & Root—N.F. V

Garden Angelica.—Fruit, root, & herb (this however is not N.F.) of *Angelica Archangelica* L. (*Archangelica Officialis*, Hoffm.), *Umbelliferae*.—**HABIT.:** Europe; Asia.—**CONSTIT.:** Root: Volat. oil (0.3%–1%); angelic acid; resin (6%); angelicol; starch.—**Fruit:** Volat. oil (abt 1%); bitter substance; resin.—**ACTION:** *Herb:* Tonic; Stomachic.—*Root:* Nervine; Aromat.; Carmin.; Diaphor.; Stimulat'g Expecto.—**Fruit:** Tonic; Stomachic; Diuret.; Diaphor.—**USES:** Dyspep., bronchitis, & flatulence.—**DOSE:** Root, 0.6–2 Gm. (10–30 grn.); aver. dose 2 Gm. (30 grn.).—**Fruit,** aver. dose 1 Gm. (15 grn.).

ANGELICA, GARDEN—see Angelica

ANGELICA TREE—see Xanthoxylum

Angostura

Cusparia; Carony Bark.—Bark of *Cusparia trifoliata* Willd. (C. febrifuga, Humb.; Galipea Cusparia, St. Hil; G. officinalis, Hancock), *Rutaceae* (*Cuspariæ*).—**HABIT.:** Northern South America & West Indies.—**CONSTIT.:** Angosturin; cusparine, cusparidine; galipeine; galipeidine; ethereal oil (0.5%–1.5%); resin; a glucoside.—**ACTION:** Bitter Tonic & Febrifuge; large doses Emetic & Cathartic.—**USES:** Diarrhea, dysentery, dyspepsia, etc.; used also as bitters.—**DOSE:** 0.6–2 Gm. (10–30 grn.) as non-astring. tonic; 1.3–4 Gm. (20–60 grn.) emet. & cath.

Anhalonidine Hydrochloride

$\text{C}_{12}\text{H}_{15}\text{NO}_3\cdot\text{HCl} = 257.66$.—Salt of alkaloid fr. mescal buttons, & isomeric w. anhalonine.—Colorl. cryst.—**SOL.:** Sltly cold, eas. hot, W.

Anhalonine Hydrochloride

$\text{C}_{12}\text{H}_{15}\text{NO}_3\cdot\text{HCl} = 257.66$.—Salt of alkaloid fr. Anhalonium Lewinii, Henning (Mescal Buttons), a Mex. cactus.—Wh., cryst. powd.—**SOL.:** Diffic. cold, eas. hot, W.; sltly A., E., C.—**MELT.:** Above 230° C. w. decomp.; (alkaloid melts at 85° C.).—**ACTION:** Cardiac & Respirat. Stim.—**USES:** Angina pect., asthm., dyspnea. Like strychnine, 0.2 Gm. (3 grn.) per kilo (35 oz.) of body weight constitutes the lethal dose for rabbits.

Anhydrite—Mineral

OCCUR.: Switzerland; Germany; Hungary; Poland; Austria; U.S.; Nova Scotia.—**COMPOS.:** Anhydr. CaSO_4 .—**CRYST. SYST.:** Rhomb.—**LUSTER:** Vitr. or pearly.—**COLOR:** Gray, blue, wh., brown, reddish.—**STREAK:** Wh.—**CLEAV.:** Perfect to good.—Brittle; translucent to opaque.—**HARDN.:** 3–3.5.—**SP. GR.:** 2.899–2.985.—**USES:** Manuf. urns & ornaments; in fertilizers.

Anhydroecgonine Hydrochloride

$\text{C}_9\text{H}_{13}\text{NO}_2\cdot\text{HCl} = 203.63$.—Derivative of ecgonine.—Wh., cryst. powd.—**SOL.:** W., A.—**MELT.:** 240°–241° C.

ANHYDROGLUCOCHLORAL—see Chloralose

ANILIDODIPHENYLSAFRANINE HYDROCHLORIDE—see Induline, Alcohol-soluble

ANILIDOPHENYLSAFRANINE HYDROCHLORIDE—see Fast Blue B, Alcohol-Soluble

Aniline Merck—C.P.

Aniline Oil; Phenylamine; Aminobenzene (or -zol); Aminophen.— $\text{C}_6\text{H}_5\cdot\text{NH}_2 = 93.09$.—Fr. nitrobenzene by Fe & HCl.—Colorl. (when recent), oily liq.; darkens on expos. to air to yellow, then red, & finally to brown; charact. odor & burn'g taste.—**SOL.:** Abt 35 W.; v. eas. A., E., methyl A., acetone, CS_2 , oils.—Solidifies at abt -8° C.—**SP. GR.:** 1.026–1.027 at 15° C.—**BOIL.:** 183° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Hydrocarbons.....	0.000%
Nitrobenzene.....	0.000%

USES: Chem., var. analyt. operations; solvent; reagent for furfural, aldehyde, glyoxylic acid, chloral hydrate, CrO_3 , pentoses (Adler), amyl alcohol (Bornträger), ClO_3 (Böttger; Vitali), NO_3 (Braun; Hofmann; Longi; Schmidt), artif. honey (Browne), min. acids (Carletti), persulphates (Caro), HCl (Cipollina), lactic acid (Croner), lignin (Czapek; Schapinger; Valenta), NO_2 (Braun; Denigès), petroleum (Frey), CHCl_3 (Hofmann), mineral oils (Jablokoff), phenol (Jacquemin; Polacci), fusel oil (Jorissen), phenylenediamine (Kreis), free acids (Laborde), oleic acid (Ludwig), oil cloves (Pool), phosgen (Scholvien), formaldehyde (Trillat), Cl (Villiers-Fayolle), & phloroglucin (Weselsky); chem. synthesis; prepar'g

staining soluts.—*Medic.*, as Antisept.; Antipyret., *intern.*, (in form of its salts), in epilepsy, chorea, carcinoma, hysteria, & tabetic pains; *extern.*, as solvent f. iodoform in purulent ear disease, & f. cocaine f. anesthetiz'g the ear drum & at the same time rendering the latter transparent.—*Dose*: 0.06–0.12 cc. (1–2 M) 3 t.p.d.—*Max. D.*: 0.15 cc. (2½ M) single, & 0.3 cc. (5 M) p. day.—*APPLIC.*: 4–5 drops of sat. solut. of iodoform on a cotton plug & left in ear f. 5 min., 1–2 t.p. week.—*ANTID.*: Stomach siphon, emetics, cold affusions, ammonia, stimulants, fresh air, oxygen, artif. respiration, alkaline NaCl transfusions, venesection, sod. sulphate, plenty of milk, black coffee, camphor, ether (but no alcohol or castor oil).—*INCOMP.*: Oxidizers, albumin, soluts. of Fe, Zn, Al; acids & alkalis.—*CAUT.*: Keep in dark, well-stop. bots.

do Merck

USES: Manuf. varnishes, medicinals, & perfumes; vulcaniz'g rubber, as solvent, but chiefly manuf. dyes.

Aniline Acetate

$C_6H_5.NH_2.CH_3COOH = 153.14$. — Yellowish liq.—*SOL.*: W., A.—On standing, is grad. converted into acetanilid.—*Sp. GR.*: 1.073–1.075.—*USES*: Test f. furfural (Hewitt).

Aniline Antimonytartrate

Antimonyl Anilinetartrate. — $C_4H_5O_6(SbO)_6.C_6H_5.NH_2 = 378.35$.—Wh. cryst.—*SOL.*: W., A.—*USES*: Inst. of tartar emetic (because less toxic) in trypanosomiasis.—*Dose*: 0.1–0.2 Gm. (1½–3 grn.) in 1% solut. intraven.

ANILINE BROMIDE—see Aniline Hydrobromide

ANILINE BROWN—see Bismarck Brown

Aniline Camphorate

$(C_6H_5NH_2)_2C_{10}H_{16}O_4 = 386.37$. — Yellow cryst.—*SOL.*: Eas. A., E.; dil. A.; 30 W., 10 G.; decomp. in C., CS₂, fatty oils.—*ACTION*: Antispasm.—*Dose*: 0.1–0.2 Gm. (1½–3 grn.).—*Max. D.*: 1 Gm. (15 grn.) p.d.

ANILINE CHLORIDE—see Aniline Hydrochloride

Aniline Dyes—see under proper names, as below:

Black.—See Brilliant Black B; Induline (sol. in water); Induline (alcohol sol.); Nigrosine (sol. in alcohol); Nigrosine (sol. in benzin); & Palatin Black (B, 4B, 5BN, & 6BE).

Blue.—See Alkali Blue B; Cyanine; Fast Blue B, Alcohol Soluble; Gentian Blue 6B; Methyl Blue; Methylene Blue BX; Reddish Blue; Toluidine Blue; & Victoria Blue B.

Brown.—See Bismarck Brown.

Green.—See Brilliant Green; Coeruleine; Malachite Green; Methyl Green; Methylene Green; & Naphthol Green B.

Orange.—See Chrysoidine Orange; Methyl Orange; Orange GG; Orange T; Tropaeoline (OO, OOO, etc.).

Red.—See Aurin Red; Benzopurpurine 4B; Biebrich Scarlet; Biebrich Scarlet R Medic-

inal; Bordeaux Red; Brilliantcrocein M; Congo Red; Corallin (sol. in water); Eosine Bluish; Eosine Yellowish; Erythrosine; Fuchsin; Iodeosine; Magdala (Naphthalene) Red; Methyleneosine Red; Neutral (Toluylene) Red; Ponceau; Purpurine (Dry & Paste); Rose Bengal; Ruby S; Safranin T; & Scarlet Red; also Sudan III, fat dye.

Violet.—See Crystal Violet; Gentian Violet (B & BR); Hofmann's Violet; Methyl Violet (B, 2B, 3B, 4B, & 5B); and Methylene Violet.

Yellow.—See *p*-Aminoazobenzene; Auramine Yellow; Martius Yellow; Naphthol Yellow S; Quinoline Yellow; Sudan Yellow; Uranine; also Sudan Yellow G fat dye.

ANILINE FLUORIDE—see Aniline Hydrofluoride

Aniline Hydrobromide

Aniline Bromide.— $C_6H_5.NH_2.HBr = 174.02$.—Wh., to sltly reddish cryst. powd.—*SOL.*: W., A.

Aniline Hydrochloride Merck—C.P.

"Aniline Salt"; Aniline Chloride.— $C_6H_5.NH_2.HCl = 129.56$.—Wh. cryst.; eas. bec. yellow.—*SOL.*: Eas. W., A.—*MELT.*: 198° C.—*BOIL.*: 245° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.05%
Sulphate (SO ₃)	0.004%
Iron (Fe)	0.002%

USES: Test f. ClO₃ (Virgili), & NO₂ in W. (Vaubel).

do. Merck.—Cryst.

DESCRIPT., *SOL.*, *ETC.*: As of the preceding.—*USES*: *Techn.*, Manuf. intermediates, aniline black, & o. dyes; dyeing fabrics black.

Aniline Hydrofluoride

Aniline Fluoride. — $C_6H_5.NH_2.HF = 113.10$.—Wh. cryst. powd., v. eas. bec. gray on keeping.—*SOL.*: Eas. W.; diffic. cold, eas. hot., A.

Aniline Nitrate

$C_6H_5.NH_2.HNO_3 = 156.11$. — Wh. cryst., eas. bec. yellowish.—*SOL.*: Eas. W., A.—Decomp. at 190° C. with formation of nitraniline.

ANILINE OIL—see Aniline

Aniline Oxalate

$(C_6H_5NH_2)_2.H_2C_2O_4 = 276.21$. — Wh. cryst. powd.—*SOL.*: Eas. W., diffic. absol. A., insol. E.—*USES*: Test f. glyoxylic acid (Duppaparkin).—*CAUT.*: Keep in dark amber bot.

ANILINE PINK—see Safranin

ANILINE RED—see Fuchsin, Dye

ANILINE ROSE—see Safranin

"ANILINE SALT"—see Aniline Hydrochloride

Aniline Sulphate Merck

$(C_6H_5NH_2)_2.H_2SO_4 = 284.27$.—Wh. cryst. powd.—*SOL.*: Eas. W., diffic. absol. A.; insol. E.—*ACTION*: Nervine; Analges. & Deodor. (in cancer).—*USES*: Chorea, epilepsy, & cancer.—*Dose*: 0.05–0.1 Gm. (¾–1½ grn.); in cancer, 0.05 Gm. (¾ grn.) 2 t.p.d. grad. incr. to 0.5

Gm. (8 grn.) p.d.—Max. D.: 0.25 Gm. (4 grn.) single, & 0.5 Gm. (8 grn.) p.d.—CAUT.: Keep in amber bot.

ANILINE TRIBROMIDE—see Tribromaniline

ANILINEAZOBETANAPHTHOL—see Sudan Yellow

ANILINEAZOBETANAPHTHOLDISULPHONIC ACID G
—see Orange G (M)

ANILINEAZORESORCINOL—see Sudan Yellow G

Anilpyrine

By fusing 188 parts antipyrine w. 135 parts acetanilid.—Wh., cryst. powd.—SOL.: 0.4 W. MELT.: 75° C.—ACTION: Antipyr.; Analgesic.—USES: Influenza; neuralg.; migraine; rheumat.—DOSE: 0.5–1 Gm. (8–15 grn.) 2–3 t.p.d.

ANIMAL DIASTASE—see Amylopsin

ANIMÉ (soft copal)—see Copal

ANISALDEHYDE—see Aldehyde Anisic

Anise—N.F. V; B.P.

Anised.—Dried ripe fruit of *Pimpinella Anisum*, L., Umbelliferae.—HABIT.: Western Asia; Egypt; cultiv. in Southern Europe, India, & U.S.—CONSTIT.: Volat. oil (1.5%–3.5%); choline; sugar; fixed oil.—ACTION: Aromat.; Carminat.; Expectant.; Stim.; Stomachic.—USES: Colic; increasing milk secretion; quieting babies.—*Techn.*, manuf. volat. oil & liqueurs; condiment & flavor.—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose 0.5 Gm. (8 grn.).

ANISE CAMPHOR—see Anethol

ANISEED—see Anise

o-Anisidine

Orthoanisidine; Orthomethylaminophenol.— $C_6H_4(OCH_3)(NH_2)[1:2] = 123.12$.—Fr. o-amidophenol & potass. methylsulphate by heat.—Yellowish liq.; bec. brownish on expos. to air.—SOL.: Eas. A., E.—BOIL.: 218° C. at 755 mm.—Sp. Gr.: 1.098 at 15° C.—USES: Manuf. azo dyes.

ANISOIL—see Anisol

Anisol

Anisoil; Methylphenylester.— $C_6H_5OCH_3 = 108.10$.—Fr. anisic acid by $Ba(OH)_2$.—Colorl., ether. liq.—SOL.: A.—BOIL.: 154° C.—SP. GR.: 0.999 at 15° C. MELT.: –37.8° C.—USES: Test f. lignin (Czapek).—*Techn.*, insecticide for lice, etc., pure, or w. alcohol, as spray; manuf. intermediates, perfumery; as solvent.

ANISOL ORTHIODIDE—see o-Iodanisol

Anatto

Arnotta; Annotta.—Fr. seeds *Bixa Orellana*, L.—SOL.: A., E., & oils.—USES: Dye'g silk orange in hot soap-bath; color'g butter, cheese, & oils; manuf. wood stains & varnishes.

ANNIDALIN—see Thymol Iodide

ANNOTTA—see Anatto

ANODYNINE—see Antipyrine

ANTACIDIN—see "Calcium Saccharate"

ANTHION—see Potassium Persulphate

Anthracene—Purified, Sublimed

Paranaphthalene.— $C_{10}H_8$ —178.15. —Fr. coal tar.—Sltly yellow, cryst. powd.; fluoresces blue; changes in sun to paraanthracene.—SOL.: Sltly A., B., C., E., CS_2 .—MELT.: Abt 217° C.—BOIL.: Abt 350° C.—USES: Manuf. anthraquinone, alizarin, & alizarin dyes; also test f. lignin (Kielmeyer).—CAUT.: Keep fr. light.

Anthragalloyl

Trioxanthraquinone [1:2:3]. — $C_{14}H_5(OH)_3O_2 = 256.13$.—Fr. benzoic & gallic acids by H_2SO_4 .—Brown powd.—SOL.: A., C.; diff. E.; insol. W.—SUBL.: Abt 290° C.—MELT.: 310° C.

ANTHRAPURPURINE—see Purpurine

Anthraquinone

Diphenylencetone. — $C_{14}H_{10}(CO)_2C_6H_4 = 208.13$.—Fr. anthracene in glac. acetic acid by CrO_3 .—Yellow need.—SOL.: v. sltly A.; E.; more so in hot B.; insol. W.—MELT.: 286° C.—BOIL.: 382° C.—SUBL.: 250° C.—USES: Manuf. intermediates, alizarin, & dyes; detect'g W. in A. (Claus); also in manuf. anthrapurpurine & other derivatives used as laxatives.

Anthrarobin

Dioxyanthranol; Desoxy- or Leuco-alizarin; 1,2,10-Trioxanthracene; Anthroarobin. —Cryst. prin. of madder.— $C_{14}H_8C(OH)[10]CH_2C_6H_2(OH)[1:2]_2 = 226.15$. —Fr. alizarin by reduct'n.—Yellowish-brown to chocolate-colored powd.—SOL.: 5 A., E., acetone, glac. acetic acid, alkalies; sltly W.—MELT.: 208° C.—ACTION: Deoxidizer; Antisep.—USES: *Extern.*, inst. of chrysarobin (because milder in action & causes no inflam. of skin) in skin dis., espec. psoriasis, tinea tonsurans, pityriasis versic., & herpes.—APPL.: 10% oint. or 5%–10% alcohol. solut.

Anthrasol

"Purified, colorl. coal tar."—Thin, light-yellow, oily liq.—SOL.: 1:20 A. (90%); misc. absol. A., acetone, oils, petrolatum, & o. fats; insol. W.—ACTION: Dermic.—USES: Herpes, pruritus, hyperidrosis, eczem., & o. chron. & parasitic skin diseases.—APPL.: Pure; or in 10% solut. in alcohol., or mixed w. oils, or 5%–30% oints.—Does not stain skin or linen.—VETER. MED.: In eczema, itch, mastitis, etc., pure or with oils or as oint.

ANTICHLOR—see Sodium Thiosulphate

ANTIDIPHTHERIC GLOBULINS, or SERUM—see Antitoxin, Diphtheria

ANTIFEBRIN—see Acetanilid

Antiformin

Strongly alkal. solut. sod. hypochlorite; ea. 100 cc. cont. abt 6 Gm. available Cl, abt 8 Gm. NaOH, & 0.3 Gm. Na_2CO_3 .—Yellowish, clear, liq.; pecul. odor of hypochlorites.—ACTION: Bacteria Solvent; Germicide; Disinf.; Deodor.; Antisep.—USES: Test f. tubercle bacilli in sputum; steriliz. surgeon's hands & instruments; disinf. wounds, etc.; also in skin dis.—APPL.: *Extern.*, 2%–10% solut.; as spray

4:1000 solut.; as disinfect., 5% solut.; for demonstrating tubercle bac., 15% solut.

"ANTIFUNGIN"—see Magnesium Borate

"ANTIHYPO"—see Potassium Percarbonate

ANTIMONIAL GLASS—see Antimony Sulphide Vitreous

ANTIMONIAL SAFFRON—see Antimony Oxide Brown

Antimonite—Mineral

Antimony Glance; Stibnite.—OCCUR.: China; France; Mexico; Italy; U. S.—COMPOS.: Sb_2S_3 .—CRYST. SYST.: Rhomb.—LUSTER: Bright met.—COLOR: Lead gray, tarnishing iridescent, or black.—STREAK: Lead gray.—FRACT.: sm. subconch.—HARDN.: 2.—SP. GR.: 4.52–4.62.—USES: Most important Sb ore.

Antimony Merck

Stibium; Regulus of Antimony.—Sb = 120.20.—Disc. by Valentinus in 1460.—Silver-wh., lustr., hard, brittle metal; scale-like crystal. struct.—INSOL. in cold dil. or conc. HCl or H_2SO_4 .—MELT.: 630°C .—BOIL.: 1440°C .—SP. GR.: 6.67.—USES: Rarely medicinally.—*Techn.*, in manuf. alloys (Britannia & Babbitt metal, hard lead, white metal, type, bullets, & bearing metal), explosives, matches, & fireworks; manuf. thermoelectric piles; blackening iron; coating metals, etc.—ANTID. (of salts): Emetics or stomach siphon, strong decoct. oak bark, mucilag. drinks, opium.

do. Merck—Powd.

ANTIMONY AMIDOTHIOLYCOLLATE—see Antimony Thioglyollamide

Antimony "Arsenate" Merck

Mixt. of Sb_2O_3 (Ph. Bor. V) w. 20% H_4AsO_7 .—Heavy, wh. powd.—INSOL. A., W.—USES: Syph. skin erupt.—DOSE: 0.0006–0.002 Gm. ($\frac{1}{100}$ – $\frac{1}{30}$ grn.) 2–3 t.p.d.—MAX. D.: 0.002 Gm. ($\frac{1}{30}$ grn.) single; 0.02 Gm. ($\frac{1}{3}$ grn.) p. d.

Antimony "Arsenite"

Mixt. eq. parts Sb_2O_3 & As_2O_3 .—Fine wh. powd.—INSOL. W., A.—USES: Heart affections, var. neuroses, asthma, & skin. dis.—DOSE: 0.0006–0.002 Gm. ($\frac{1}{100}$ – $\frac{1}{30}$ grn.) 2–3 t.p.d.—MAX. D.: 0.002 Gm. ($\frac{1}{30}$ grn.) single; 0.02 Gm. ($\frac{1}{3}$ grn.) daily.

ANTIMONY, BLACK, or GRAY—see Antimony Sulphide Black

ANTIMONY BLOOM—see Antimony Oxide

Antimony Bromide—Antimonous

Antimony Tribromide.— SbBr_3 = 359.96.—Fr. Sb powd. & solut. Br in CS_2 .—Yellow crystal. mass.—SOL.: CS_2 , & in dil. HCl. Decomp. by W.—MELT.: Abt 95°C .—BOIL.: Abt 275°C .—SP. GR.: Abt 4.15.—CAUT.: Keep well stopp.

ANTIMONY, CAUSTIC—see Antimony Chloride

Antimony Chloride—Antimonic

Antimony Pentachloride, or Perchloride.— SbCl_5 = 297.50.—Fr. Sb powd. & Cl gas.—Reddish-yellow, oily, hygrosc., caustic liq.; offensive odor; fumes in moist air; solidif. by absorp. of moisture; decomp'd by much W. into

Sb_2O_5 & HCl.—SOL.: In aqu. solut. tartaric acid.—MELT.: 2.8°C .—USES: *Techn.*, as test f. alkaloids & Cs (Godeffroy; Schultze; Smith); manuf. intermediates; in dyeing.

do. Merck—Antimonous—C.P.—Cryst.

Butter of Antimony; Antimony Trichloride; Caustic Antimony; Mineral Butter.— SbCl_3 = 226.58 (= 228.14 [1929 atom. wts]).—Fr. Sb powd. & HgCl_2 by distill'n.—Colorl., v. deliq., translucent, crystal. mass.—SOL.: Absol. A., CS_2 , B., C., E., acetone; also in little W.; w. much W. SbOCl ppts; insol. CCl_4 .—MELT.: 73°C .—BOIL.: Abt 223°C .

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.010%
Arsenic (As)	0.003%
Iron (Fe)	0.010%
Other Heavy Metals	0.00%
Substcs not Pptd by H_2S	0.20%

USES: *Chem.*: as test f. Na (Bougault), & chloral (Covelli); also f. Cs & aromatic hydrocarbons.—NOTE: Prone to darken on keeping.

do. Merck—Antimonous—Cryst.

DESCRIPT. & PROPERTIES: As of preced'g.

do. Merck—Antimonous—Solution—Sp. Gr. 1.35 = 37.6°Bé .

Liquid Butter of Antimony.—Cont. abt 33% SbCl_3 in HCl solut.—Clear, oily, strongly caustic liq.—ACTION: Caustic.—USES: *Extern.*, snake bites, poisoned wounds, syphilitic & indolent ulcers, fungous flesh, warts, &c.

do. Merck—Antimonous—Solution—Sp. Gr. 1.5

Clear, usually yellow to yellowish-red, oily liq.—USES: *Techn.* bronzing iron (specially gun barrels), mordant for patent leather, & in dyeing; coloring zinc black; manuf. lakes (particularly fr. dye woods); furniture polishes.

ANTIMONY CHLORIDE, BASIC—see Antimony Oxychloride

ANTIMONY, CRUDE—see Antimony Sulphide, Black

ANTIMONY, DIAPHORETIC—see Potassium Antimonate

Antimony Fluoride

Antimony Trifluoride.— SbF_3 = 177.20.—Grayish-wh., hygrosc. crystal.—SOL.: W.—MELT.: 292°C .—USES: Dyeing, in form of double salt, antimony fluoride & ammonium sulphate, & "double antimony fluoride," ($\text{SbF}_3 + \text{NaF}$); manuf. pottery & porcelains.

ANTIMONY GLANCE—see Antimonite; Antimony Sulphide, Black

Antimony Iodide Merck

Antimony Triiodide.— SbI_3 = 500.96.—Fr. Sb & I.—Red crystal; decomp. by water w. pptn of oxyiodide; volat. at high temp.—SOL.: A., HCl, solut. KI, CS_2 ; insol. C.—MELT.: Abt 171°C .—ACTION: Alter.—USES: *Intern.*, chron. bronchial catarrh.—*Extern.*, in pustular eruptions, in 1:5–10 oint.—DOSE: 0.01–0.015 Gm. ($\frac{1}{30}$ – $\frac{1}{4}$ grn.).

Antimony Oxalate

$\text{Sb}_2\text{O}(\text{C}_2\text{O}_4)_2 + 1\frac{1}{2}\text{H}_2\text{O} = 441.43$. — Wh. powd. — **SOL.**: Acids. — **USES**: Mordant in dyeing & printing, partic. in form of double salt, potassium & antimony oxalate, $\text{Sb}(\text{C}_2\text{O}_4\text{K})_3 + 6\text{H}_2\text{O}$.

Antimony Oxide Merck—Antimonious

Antimony Pentoxide; Antimonic, or "Stibic," Anhydride; improperly "Antimonic, or Stibic, Acid" — $\text{Sb}_2\text{O}_5 = 320.40$. — Yellowish powd. — **SOL.**: Slightly in dil. acids & in W. — **USES**: Formerly used medicinally like golden antimony sulphide, & tartar emetic.

Antimony Oxide Merck—Antimonous—C.P.—Powd.

Antimony Trioxide; Anhydrous Antimonous, or Stibious, Acid; Flowers of Antimony; Antimony Bloom. — $\text{Sb}_2\text{O}_3 = 288.40$ (= 291.54 [1929 atom. wts]). — Wh., odorl., tastel., cryst. powd.; yellow when hot & white on cool'g. — **SOL.**: Warm sat. solut. tartaric acid & alkali tartrates; HCl , G.; conc. solut. alkalies; v. sltly W., dil. H_2SO_4 . — **MELT.**: At dark-red heat; volatilized at higher temp.; cryst. on cool.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.020%
Sulphate (SO_3).....	0.020%
Arsenic (As).....	0.005%
Copper.....	0.00%
Iron (Fe).....	0.020%

ACTION: Expector.; Emetic; Diaphor. — **USES**: Trypanosomiasis; chiefly pharm. & techn.; powerful reducing agent. Source of tartar emetic; also test'g f. Th salts (Ephraim). — **DOSE**: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.); aver. dose 0.06 Gm. (1 grn.), N.F. V; in trypanosomiasis, 2–3 cc. (30–45 M) 1:1500 solut. in eq. pts W. & G. by intramusc. (not subcut.) inj.

do. Merck—Antimonous—Pure

DESCRIPT., **SOL.**, **ETC.**: As preced'g.

do. — Antimonous—Brown

Antimonial Saffron; Crocus, or Hepar, of Antimony; Crocus Metallorum. — Consists chiefly of antimony oxysulphide, $\text{Sb}_2\text{O}_3 + \text{Sb}_2\text{OS}_2$. — Grayish-brown powd. — **SOL.**: HCl w. turbid.; v. sltly W. — **MELT.**: At red heat. — **USES**: *Medic.*, obsolete; has been used *intern.* in chron. metal poisoning, skin dis., scrofula, & where antimony sulphide golden is indicated. — *Extern.* in 1% solut. as loc. applic., & w. W. as a depil. — **DOSE**: 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.).

"ANTIMONY OXIDE, WHITE"—see Potassium Antimonate

Antimony Oxychloride

Powder of Algaroth; Basic Antimony Chloride; Mercurius Vitæ. — Mixt. basic antimony chloride, SbOCl , w. Sb_2O_3 . — Wh. powd. — **SOL.**: Acids; insol. W. — **USES**: Emetic, even in small dose; now obsolete. Chiefly used as source of tartar emetic. — *Techn.*, as smoke producer.

Antimony Oxyiodide

Compos. variable. — Yellow cryst. powd. — **SOL.**: HCl w. decomp.; insol. W.

ANTIMONY PENTACHLORIDE—see Antimony Chloride

ANTIMONY, PENTASULPHIDE—see Antimony Sulphide, Golden

ANTIMONY PENTOXIDE—see Antimony Oxide

ANTIMONY PERCHLORIDE—see Antimony Chloride

ANTIMONY PERSULPHIDE—see Antimony Sulphide, Golden

ANTIMONY RED—see Antimony Sulphide, Golden

Antimony Sulphate Merck

Antimonous Sulphate; Antimony Trisulphate. — $\text{Sb}_2(\text{SO}_4)_3 = 528.58$. — More or less cryst. powd. or lumps; deliquesce. in moist air. — **SOL.**: Acids; w. a little W. a solid mass forms which diss. in more W., but excess of W. changes it into insol. basic salt; insol. A.

Antimony Sulphide Merck—Purified, Black—U.S.P. VII

Antimonous Sulphide; Antimony Trisulphide; Black or Gray Antimony. — $\text{Sb}_2\text{S}_3 = 336.58$. — Native Sb_2S_3 freed from siliceous material & arsenical compounds. — Grayish-black powd. — **SOL.**: Hot HCl w. evol. of H_2S ; insol. W. — **MELT.**: Below red heat. — **ACTION**: Diaphor.; Alter. — **USES**: *Medic.*, scrof., chronic rheum., glandular obstruct., cutan. dis., syph., & dis. of respiratory organs. — **DOSE**: 0.3–1 Gm. (5–15 grn.) in powd. or bolus. — **VETER. MED.**, cattle, 20–50 Gm. (5–12½ dr.); horses, 10–30 Gm. (2½–8 dr.); sheep, goats, & pigs, 2–5–15 Gm. (30–75–240 grn.); dogs, 0.06–0.5–2 Gm. (1–8–30 grn.).

do. Merck—Black—Powd.

Needle Antimony; Antimony Glance; Crude Antimony. — **USES**: *Techn.*, in pyrotechnics, Bengal fires, refining gold; manuf. ruby glass, matches, & explosives; as pigment in paints &c.

Antimony Sulphide Golden Merck—Antimonic

Antimonial Sulphide; Antimony Penta- or Persulphide; Antimony Red; Sulphur Gold. — $\text{Sb}_2\text{S}_5 = 400.70$. — Fine, orange-yellow, odorl. powd. — **SOL.**: Solut. NaOH , & hot HCl ; insol. W., A. — **ACTION**: Alter.; Diaphor.; Cholag.; Emetic; Expector. — **USES**: Cutan. erup., bronch. catarrh, syph., scrof., rheumat., gout. — *Techn.*, as pigment, vulcanizing & coloring rubber, manuf. matches & fireworks. — **DOSE**: 0.01–0.1 Gm. ($\frac{1}{2}$ –1½ grn.) 2–3 t.p.d., us'y in powd. — **VETER.**, as Expector.; Galactag.; doses, horses & cattle, 10–25 Gm. (2½–6 dr.); sheep & pigs, 2–5 Gm. (30–75 grn.); dogs, 0.06–0.6 Gm. (1–10 grn.); cats & fowl, 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.). — **INCOMP.**: Acids, sour food, metal. salts. — **CAUT.**: Keep fr. light.

ANTIMONY SULPHIDE, RED—see Antimony Sulphurated

Antimony Sulphide Vitreous

Vitreous Antimony; Antimonial Glass. — By roasting antimony sulphide, then fusing the product w. antimony sulphide. — Transp., dark, ruby-red mass. — **USES**: Tinting glass & porcelain yellow; formerly used medicinally also, but now obsolete.

Antimony Sulphurated Merck—N.F. IV

Kermes Mineral; Red Antimony Sulphide.— Sb_2S_3 (chiefly) + Sb_2O_3 + NaSbO_3 + free S.—React.-prod., Sb_2S_3 , alkali hydroxide & dil. H_2SO_4 .—Amorph., red-brown, odorl., tastel. powd., lighter on expos. to light; cont. at least 45% Sb.—SOL.: Eas. in NaOH, hot HCl (H_2S evolved); insol. W., A.—ACTION: Alter.; Diaphor.; Emetic.—USES: Cutaneous dis., diseases of respir. passages, & syph.; alterative generally.—*Techn.*, for vulcanizing & impart. red color to rubber.—DOSE: 0.01–0.12 Gm. ($\frac{1}{16}$ –2 grn.) 2 t.p.d. As emetic, 0.3–1.3 Gm. (5–20 grn.).—INCOMP.: Acids & acid drinks or food.—CAUT.: Keep fr. light.

ANTIMONY, TARTARIZED—see Antimony & Potassium Tartrate

Antimony Tartrate

$\text{Sb}_2(\text{C}_4\text{H}_4\text{O}_6)_3 + 6\text{H}_2\text{O} = 792.65$.—Wh., cryst. powd.—SOL.: W.—USES: *Intern.*, inst. of arsenic, in skin dis.—DOSE: 0.006 Gm. ($\frac{1}{10}$ grn.) 3–5 t.p.d.

ANTIMONY, TARTRATED—see Antimony & Potassium Tartrate

Antimony Thioglycollamide

Antimony Amidothioglycollate. — $\text{Sb}(\text{S}.\text{CH}_2\text{CO}.\text{NH}_2)_3 = 390.53$.—Wh., cryst., odorl. powd.; cont. 30% Sb.—SOL.: Abt 200 W.; somewh. in A.; insol. E.—MELT.: Abt 139° C.—USES: Trypanosomiasis, kala-azar, filariasis.—DOSE: 0.08 Gm. ($1\frac{1}{2}$ grn.) diss. in 20 cc. (5 fl. dr.) sterile W. intramusc. or intraven. ev. 2nd day till 15–25 inj. have been given.—INCOMPAT.: Alkalies.

ANTIMONY TRIBROMIDE—see Antimony Bromide

ANTIMONY TRICHLORIDE—see Antimony Chloride

ANTIMONY TRIFLUORIDE—see Antimony Fluoride

ANTIMONY TRIIODIDE—see Antimony Iodide

ANTIMONY TRIOXIDE—see Antimony Oxide

ANTIMONY TRISULPHATE—see Antimony Sulphate

ANTIMONY TRISULPHIDE—see Antimony Sulphide Black

ANTIMONY, VITREOUS—see Antimony Sulphide Vitreous

Antimony & Potassium Oxalate

$\text{K}_2\text{Sb}(\text{C}_2\text{O}_4)_3 = 501.53$ + aq.—Wh., cryst. powd.—SOL.: W.—USES: Dyeing & printing; inst. of tartar emetic as mordant.

Antimony & Potassium Tartrate Merck—U.S.P. X—Cryst. or Powd.

Tartar Emetic; Tartarated, or Tartarized, Antimony; Mordant Salts.— $\text{K}(\text{SbO})\text{C}_4\text{H}_4\text{O}_6 + \frac{1}{2}\text{H}_2\text{O} = 332.36$.—Colorl., transp. crystals, bec. white & opaque on expos. to air, or fine wh. gran. powd.; odorl.; sweetish metallic taste.—SOL.: 12 W., 15 G., at 25° C., 3 boil. W., & insol. A., U.S.P.; (17 cold W., alm. insol. A. [90%], B.P.).—Loses water of cryst. at 110° C.—ACTION: Alter.; Diaphor.; Expector.; Emetic; Counter-irrit.—USES: *Intern.*, as expector., in acute bronch. catarrh, chorea (in childr.), bronchial & pulmon. affec., &c.; also in kala-

azar & in malaria.—*Extern.*, meningitis, &c.—Also *pharm.*, & *techn.*, as test f. wine coloring matters (Herz).—DOSES: Aver., 0.003 Gm. ($\frac{1}{20}$ grn.); as *alter.*, 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.); as *diaphor.* & *expector.* 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); in *malaria*, 0.03 Gm. ($\frac{1}{2}$ grn.) grad. incr. to 0.1 Gm. ($\frac{1}{2}$ grn.) intraven.; *nauseant*, 0.02–0.03 Gm. ($\frac{1}{3}$ – $\frac{1}{2}$ grn.); *emet.* 0.06–0.12 Gm. (1–2 grn.) ev. 10–15 min. as required.—MAX. D.: 0.2 Gm. (3 grn.) single; 0.6 Gm. (10 grn.) daily.—APPL.: In certain cutan. dis.; (alopecia, acne rosacea, psoriasis), in 1:4 int.; in gonorrh., in 0.1–0.2:100 inject.; in corneal opacities in 0.05–0.1:10 oint.—INCOMP.: Acids, alkalies, soap, tannin, lime-water, gallic acid, soluts HgCl_2 , AgNO_3 , lead acetate, & albumin.—ANTID.: Tannic acid in solut., freely; stimulants & demulcents; ice; opium; stomach siphon; analeptics.—CAUT.: Keep well stoppered. Poison!

Antimony & Sodium Thioglycollate

$(\text{S}.\text{CH}_2\text{CO}_2) : \text{Sb}.\text{SCH}_2\text{CO}_2\text{Na} = 323.37$.—Wh. or sltly pinkish powd.; odorl., or w. a v. slt odor of mercaptan; cont. 37% Sb.—SOL.: v. eas. W.; insol. A.—USES: Trypanosomiasis, kala-azar, filariasis.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) in 10–20 cc. ($2\frac{1}{2}$ –5 fl. dr.) sterile W. intramusc. or intraven. ev. 3–4 days until 15–25 inj. have been given.—INCOMPAT.: Alkalies.

ANTIMONYL ANILINETARTRATE—see Aniline Antimonytartrate

ANTIMONYNICKELGLANCE—see Ullmannite

Antipyrin

So-called "Neutral Sodium Tetraborate."—Eq. parts H_3BO_3 & borax fused together.—Fine powd.—SOL.: Eas. W.—USES: Insufflation in inflam. of cornea & conjunctiva; also in powd. or 4%–50% solut. in acute & chron. gonorrhea, & in phlyctenular keratitis, conjunctival hyperemia, & otitis.

ANTIPYRETICUM—see Antipyrine

Antipyrine Merck—U.S.P. X

Phenazone (B.P.); Dimethyloxyquinizine; Phenylidimethylpyrazolon; Analgesine; Metozine; Parodyne; Phenylene; Anodynine; Phenylene; Antipyreticum; Oxydimethylquinizine; Pyrazine; Pyrazoline; Sedatine.— $(\text{CH}_3)\text{N}.\text{C}(\text{CH}_3) : \text{CH}.\text{CO}.\text{N}(\text{C}_6\text{H}_5) = 188.17$.—Fr. phenylhydrazine & ethyl acetoacetate.—Colorl., odorl., sltly bitter, tabular cryst., or cryst. powd.—SOL.: Less than 1 W., 1.3 A., 1 C., 43 E., at 25° C., U.S.P.; (1.3 C., 1.2 W., B.P.).—MELT.: 111° – 113° C.—ACTION: Antipyr.; Antirheum.; Analg.; Sed.; Antisep.—USES: *Intern.*, typhoid, erysipelas, pneumon., phth., artic. rheum., migraine, neuralg., chorea, epilep., whoop-cough, cerebrospinal mening., diabet., pruritus, locomotor ataxia, lumbago, sciatica, gout, hay fever, urticaria, pleurisy, influenza, night terrors, enuresis.—*Extern.*, by inj. in sciatica; as spray w. cocaine in pharyngitis; as enema w. resorcinol in whoop-cough; in hemorrhoids.—

Techn., as test f. NO_3 (Curtman; Denigès; Schuyten), HNO_3 (Denigès), mineral acids (Ganassini), & determ. I-No. (Borde).—DOSE: 0.3–1 Gm. (5–15 grn.), 3–4 t.p.d.; aver. dose, 0.3 Gm. (5 grn.).—Children, in whoop-cough, 0.06–0.2 Gm. (1–3 grn.) 4–6 t.p.d., & in night terrors & enuresis 0.12 Gm. (2 grn.) 3 t.p.d.—As *enema*, in double the dose per os.—*Subcutan.*, 1–2 cc. (15–30 M) of 1:1 aqu. solut. in neuralg., myalg., renal & biliary colic, over seat of pain. As *suppository*, 0.5 Gm. (8 grn.).—MAX. D.: 2 Gm. (30 grn.) single; 4 Gm. (60 grn.) p.d.—APPL.: as 2:15 oint. in hemorrhoids.—IN VETER. MED., in rheum., partic. in *dogs*; otherwise as an antipyret. & sedat. in acute, nervous distemper; also in eclampsia in *bitches*.—DOSES: *Horses & cattle*, 15–25 Gm. (4–6 dr.); *dogs*, accord. to size, 0.25–1–2–4 Gm. (4–15–30–60 grn.); *cats*, 0.2–0.5 Gm. (3–8 grn.).—ANTID.: Castor oil; strychn.; atropine; digitalis; morphine by inj.; agaricin (for the sweating); oxygen in cyanosis; friction; maintain body heat.—INCOMP.: Acids; Alkalies; alum; NH_4OH ; amyl nitrite; benzoates; betanaphthol; Br; carbolic acid; chloral hydrate, CuSO_4 ; CrO_3 ; cinchona alkaloids; FeCl_3 ; FeSO_4 ; HCN; I & iodides; lead subacetate; HgCl & HgCl_2 ; orthoform; KMnO_4 ; pyrocatechin; pyrogallol; resorcinol; NaHCO_3 ; sodium salicylate (in powder); solution arsenic & mercury iodides; spirit nitrous ether (unless prescribed w. sod. bicarb.); syrup ferrous iodide; tartar emetic; tannic acid; thymol; urethane; infusions of catechu, cinchona, rose leaves, & uva ursi; tinctures of catechu, ferric chloride, cinchona, hamamelis, iodine, kino, & rhubarb.

ANTIPYRINE ACETYSALICYLATE—see Pyrosal

ANTIPYRINE AMYGDALATE—see Tussol

ANTIPYRINE CHLORALHYDRATE—see Hypnal

ANTIPYRINE IODIDE—see Iodopyrine

ANTIPYRINE MANDELATE—see Tussol

ANTIPYRINE-QUININE—see Quinopyrine

ANTIPYRINE SALICYLACETATE—see Pyrosal

ANTIPYRINE SALICYLATE—see Salipyrine

Antipyrine Valerate

Phenyldimethylpyrazolon Valer(ian)atē.— $\text{C}_{11}\text{H}_{12}\text{N}_2\text{O}_5$. $\text{C}_6\text{H}_{10}\text{O}_2 = 290.27$.—Colorl. cryst.—SOL.: Eas. W. & A.; stlty E.

ANTISEPSIN—see *p*-Bromacetanilid

ANTISEPTOL—see Cinchonine Iodosulphate

Antispasmin

Narceine-sodium & Sodium Salicylate Merck.— $\text{C}_{23}\text{H}_{26}\text{NO}_8\text{Na} + 3(\text{C}_6\text{H}_4[\text{OH}]\text{CO}_2\text{Na}) + \text{H}_2\text{O} = 965.57$.—Wh., odorl., stlty hygrosc. powd.; 50% narceine.—SOL.: Eas. (when fresh) in W., A.—ACTION: Antispasm.; Sed.; Hypn.—USES: In children's dis.; whoop-cough; laryngismus stridulus; influenza; irrit. coughs, &c.—DOSE: Children under 1 yr old, 0.01–0.015 Gm. ($\frac{1}{4}$ – $\frac{1}{4}$ grn.) $\frac{3}{4}$ t.p.d.; up to 3 yrs old, 0.02 Gm. ($\frac{1}{3}$ grn.); over 3 yrs old, 0.04 Gm. ($\frac{2}{3}$ grn.); best given in aqu. solut. sweetened w. sugar.—

CAUT.: Keep dry & fr. air, as it is affected by CO_2 , & is rendered partially insol. thereby.

ANTITETANIC GLOBULINS, or SERUM—see Antitoxin, Tetanus

Antithermin

Phenylhydrazinelevulinic Acid.— $\text{C}_6\text{H}_5\text{NH}_2 \cdot \text{N} \cdot \text{C}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{COOH} = 206.18$.—Colorl., odorl., tastel., cryst. leaflets.—SOL.: Eas. A., C., E., dil. acids; v. diff. cold, more read. hot, W.—ACTION: Antipyr.; Antisep.—USES: Phth., Bright's dis.—DOSE: 0.2–0.36 Gm. (3–6 grn.).

Antithyroidin Moebius

A "thyroid serum" obt. accord. to Moebius fr. blood serum of thyroidectomized sheep, & preserved by add'n of 0.5% phenol.—Alm. colorl., or amber colored liq.—USES: Exophthalmic goiter (Basedow's or Graves' disease) & dysthyroidism.—DOSE: In Basedow's disease, 0.5 cc. (8 M) *by mouth*, to begin with, 3 t.p.d., increas. the dose by 0.5 cc. (8 M) ea. day until the dose reaches 4 cc. (60 M) single, & 12 cc. (180 M) p.d., then reduce the dose in similar fashion. After a week or so, the treatment then repeated as before. 60–100 cc. (15–25 fl. dr.) are ordinarily required for the average case. The doses mentioned may also be given *rectally*. In osteomalacia, 30 drops 3 t.p.d. till a total of 60 cc. (15 fl. dr.) used; in diabetes 5–15 drops per day w. grad'ly increas'g dose.

do. Moebius—Tablets, $\frac{3}{4}$ Grain Each

Each tablet = 0.5 cc. (8 M) thyroid serum.—DOSE: In Basedow's disease, 1st & 2nd day, 1 tabl. 3–4 t.p.d.; 3rd–4th day, 2 tabl. 3 t.p.d.; 5th–6th day, 2 tabl. 4 t.p.d.; 7th–8th day, 2 tabl. 5 t.p.d.; the tablets are then suspended for two days & the doses then correspondingly reduced. If necessary small doses are to be continued for some time longer.

Antitoxin, Diphtheria—U.S.P. X

Purified Antidiphtheric Serum; Concentrated Diphtheria Antitoxin; Antidiphtheric Globulins.—A solut. in physiol. NaCl solut. of certain antitoxic substcs obt'd fr. blood serum of a horse which has been properly immunized against diphtheria toxin, & which has a potency of not less than 350 antitoxin units per cc.—DOSE: Protective, 1000 units; curative., 10,000 units.—CAUT.: Must be kept in sealed glass containers, in a dark place at 4.5°–15° C.

do. —Dried—U.S.P. IX

Dried Antidiphtheric Serum.—Obt'd by evap. either antidiphtheric or purif. antidiphtheric serum in vacuo over H_2SO_4 , or by passing over it warm air freed fr. bacteria; potency not less than 4000 units per Gm.—Orange or yellowish flakes, or lumps, or powd.—SOL.: 9 W.—Just bef. use, must be dissolved in recently boiled & cold dist. W.—DOSE: Protective, 1000 units, hypoderm., 10,000 units.—CAUT.: Must be kept in hermet. sealed amber bts free fr. air, in a dark place, at 4.5°–15° C.

ANTITOXIN DIPHTHERIA, CONCENTRATED—see Antitoxin, Diphtheria

Antitoxin, Tetanus—U.S.P. X

Antitetanic Globulins; Concent., or Refined, Tetanus Antitoxin; Purified Antitetanic Serum.—A solut. in NaCl solut. of certain antitoxic substs obt'd fr. blood serum or plasma of the horse properly immunized against tetanus toxin; potency not less than 300 units per cc.—Transp. or sltly opalesc. liq.—DOSE: Protective, 1500 units; curative, 10,000 units.—CAUT.: Must be kept in sealed glass bts. in a dark place at 4.5° (preferably)—15° C.

do. —Crude—U.S.P. X

Antitetanic Serum; Crude Antitetanic Serum; Unconcent., or Unrefined, Tetanus Toxin.—Liquid separated fr. coagulated blood of an animal of the genus *Equus* which has been properly immunized against tetanus toxin; potency not less than 150 units per cc.—DOSE: Protective, 1500 units; curative, 10,000 units.

do. —Dried—U.S.P. IX

Dried Tetanus Toxin.—Obt'd by evap. tetanus antitoxin in vacuo over H₂SO₄, or by passing over it warm air freed from bacteria; potency not less than 1000 units per Gm.—DOSE: Protective, 1500 units; hypoderm., 10,000 units.—CAUT.: Must be kept in the dark at 4.5°–15° C.

Antitussin

5% difluorodiphenyl oint.—Light-yellow oint.; intense, but pleas. odor.—ACTION: Antispasm.; Sedat.—USES: Whoop-cough, bronch., &c.—APPL.: By inunction, 4–5 Gm. (60–75 grn.) being rubbed into neck, chest, or back.

ANTIVENENE—see Serum, Antivenomous

Anusol

Supposit. said to cont. bism. iodoresorcinolsulphonate, zinc oxide & balsam Peru.—USES: Hemorrhoids, anal fissures, &c.

Apatite—Mineral

OCCUR.: Southern U. S., Canada, Norway, Saxony, Tyrol, England, Northern Africa, etc.—COMPOS.: (PO₄)₃FCa₅, or, (PO₄)₃ClCa₅.—CRYST. SYST.: Hexag. pyram. hemih.—LUSTER: Vitre. to resin. or dull.—STREAK: Wh.—FRACTURE: Conch. to uneven.—HARDN.: 5; somet. 4.5 when massive.—SP. GR.: 3.17–3.23.—USES: As fertilizer, either direct in finely ground condition, or more frequently as superphosphate (decomposed by H₂SO₄); manuf. phosphorus electrolytically.

Aperitol

Isovalerylacetyl-phenolphthalein. — C₂₀H₁₂O₄ (C₅H₉O)₂ + C₂₀H₁₂O₄(C₂H₃O)₂ = 888.65.—Mixt. equal parts isovaleric-acid ester & acetic-acid ester of phenolphthalein.—Wh., odorl., tastel., cryst. powd.—SOL.: 1 acetone, 1 C., 2 B.; abt 40 E.; abt 80 absol. A.; insol. W., petrol. E.—MELT.: Begins to melt at 100° C.; at 135° C. clear liq.—ACTION: Cathart.—USES: Occasional & habitual constipation.—DOSE: 0.4–0.8 Gm. (6–12 grn.). Children, 0.1–0.4 Gm. (1½–6 grn.) accord. to age.

APHRODINE HYDROCHLORIDE—see Yohimbine Hydrochloride

Apiin

C₂₆H₂₈O₁₄ + H₂O = 582.24.—Glucoside fr. seeds of *Apium Petroselinum*, L. (Parsley).—Yellowish cryst. powd.—SOL.: Eas. hot W. & hot A.; sltly in cold W.; insol. E.—MELT.: 228° C.

Apinol

A prod. (chiefly levomenthone, C₁₀H₁₈O) obt. on destruct. dist. of wood of *Pinus palustris* & *P. australis*.—Clear, amber-colored oily liq.; odor of pine.—BOIL.: Abt 182.2° C.—SP. GR.: 0.946.—ACTION: Antisep.; Loc. Anesth.; Expector.—USES: *Intern.*, catarrhal inflam. of digestive tract, by inhal.—*Extern.*, on wounds, burns, ulcers, & denuded surfaces to relieve pain & promote healing.—DOSE: 0.3–1 cc. (5–15 M).

Apiol—Cryst., White

Parsley Camphor; 1-Allyl-2,5-dimethoxy-3,4-methylenedioxybenzene; Propenyl-phentetrol-3,4-methylene-2,5-dimethyl Ether.—CH₂:O₂:C₆H₄(C₃H₅)(OCH₃)₂ = 222.17.—Stearoptene fr. oil of *Petroselinum sativum*, Hoffm. (Parsley).—Wh., optically inactive cryst.; faint parsley odor.—SOL.: A., B., C., E., acetone, oils; alm. insol. W.—MELT.: 30° C.—BOIL.: Abt 295° C.—SP. GR.: 1.015.—ACTION: Emmen.; Antiper.—USES: *Intern.*, in dysmenor. & malaria, & *subcut.* in amenorrh.—DOSES: 0.15–0.2 Gm. (2½–3 grn.) morn. & eve. (Dorvault); 0.25 Gm. (4 grn.) 2 t.p.d. (Joret). In quotid. & tertian malaria, adults 1 Gm. (15 grn.); children 12–15 years old 0.5 Gm. (7½ grn.), & younger children 0.25 Gm. (4 grn.) in capsules, before the attack. *Subcut.* in amenorrh., 0.2 Gm. (3 grn.) daily in sterilized oily solut. (1 cc. 20% solut. in sterile olive oil).—MAX. D.: 1 Gm. (15 grn.) single, & 2 Gm. (30 grn.) p.d.—CAUT.: Keep in a cool place.

do. Merck—Fluid, Green—U.S.P. IX

Oleoresin Parsley Fruit.—Fr. seed of *Petroselinum sativum*, Hoffm. (Parsley).—Greenish, oily liq.; neutral or only v. sltly acid to litmus; parsley odor.—SOL.: A., C., E.; insol. W.—SP. GR.: Abt 1.05 at 15° C.—ACTION: Emmen.; Antiper.—USES: Dysmenor., malar.—DOSES: 0.3–0.6 cc. (5–10 M) 2 or 3 t.p.d., in caps.; in *malar.*, 1 cc. (15 M); in *dysmenor.* & *amenor.*, 0.3 cc. (5 M), best in caps.—MAX. D.: 1 cc. (15 M) single; 2 cc. (30 M) daily.

do. —Yellow

Yellowish brown, oily, visc. liq.; neutral, or at most sltly acid to litmus; parsley-like odor; bec. brown on long keeping.—SOL.: v. eas. A., C., E.; insol. W.—SP. GR.: 1.050–1.090 at 15° C.—Decomp'd by heat.—ACTION: Emmen.; Antiperiod.—USES: As of Apiol, Cryst.—DOSE: *Emmen.* & *antiperiod.*, 0.3–0.6 cc. (5–10 M) 3 t.p.d.; in *dysmenor.* 0.3 cc. (5 M) in gel. caps.—MAX. D.: 1 cc. (15 M) single; 2 cc. (30 M) p.d.

APIOL, LIQUID—see Apiol, Fluid, Green; Oleoresin Parsley Fruit

Apiolin

Fr. Apiol, green.—Yellow liq.—SOL.: A.—SP. GR.: Abt. 1.04 at 15° C.—ACTION: Analgesic; Antispasmodic.—USES: Dysmenor. without lesions of the pelvic organs, to regulate menstruation; also as antispasmodic in uterine & intestinal colics; hepatic, renal & esophageal spasms; appendicitis.—DOSE: In *dysmenor.*, 0.2 cc. (3 M) in caps. 3 t.p.d., 3 days before mensural period. In intestinal colics, renal & hepatic spasms, & also in appendicitis, 2–3, & up to 60–80, drops.

Apoatropine

Atropamine; Atropyltropine.— $C_{17}H_{21}NO_2 = 271.26$.—Fr. atropine, by splitting off water.—Wh. cryst.—SOL.: Eas. A., E., C., CS_2 , B.; sltly W.—MELT.: 60°–62° C.

Apoatropine Hydrochloride

$C_{17}H_{21}NO_2 \cdot HCl = 307.73$.—Wh. cryst.—SOL.: W., A.—MELT.: 237°–239° C.

Apoatropine Sulphate—Cryst.

$(C_{17}H_{21}NO_2)_2 \cdot H_2SO_4 + 5H_2O = 730.68$.—Wh. cryst.—SOL.: Sltly in W.

Apocodeine Hydrochloride Merck

$C_{18}H_{19}NO_2 \cdot HCl = 317.72$.—Fr. codeine by heat'g w. conc. HCl & $ZnCl_2$.—Yellowish-brown to brown, hygrosc. powd.—SOL.: Freely in W., less so in A. (B.P.C.); v. sltly. HCl.—ACTION: Expector.; Sed.; Hypn.; Laxat.—USES: Chron. bronch., & o. bronchial affect.; psychic disturbances; constip., partic. in insane. Acts like codeine, but weaker; causes large secret. of saliva, & accelerates intestinal peristalsis.—DOSE: As sedat., *intern.*, or *subcut.*, 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.) single, 0.18–0.24 Gm (3–4 grn.) per day.—INJ.: As lax., *subcut.* only 2–3 cc. (30–45 M) of a 1% aqu. solut.—CAUT.: Keep fr. air & light.

Apocynin—Cryst.

Acetovanillon.—Fr. *Apocynum cannabinum*, L. (Canadian hemp).—Wh. cryst.—SOL.: A.

do. —Amorphous

Resinous substce fr. *Apocynum cannabinum*, L. (Canadian hemp).—Amorph., resinous mass; or wh. to yellowish-wh. powd.—SOL.: Eas. A., C., E.; alm. insol. W.—ACTION: Emetic; Expector.—USES: As of *Apocynum (q.v.)*.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).

Apocynum—N.F. V; B.P.C.

Canadian Hemp; American Indian Hemp; Black Indian Hemp; Indian Physic; Dogbane.—Dried Rhizome & roots of *Apocynum cannabinum*, L., Apocynaceae.—HABIT.: U.S.—CONSTIT.: Cynotoxin (apocynamarin ?); cyamarin; resin; tannin; bitter extractive; starch.—ACTION: Emeto-Cathart.; Diuret.; Cardiac Tonic; Expector.; Alterat.; Antiperiod.; Diaphor.; Antisyphil.; Sudorific.—USES: Dropsy, Bright's dis., uremia, pleuritic exud., & in various cardiac affect. The action is said to be very prompt, hence *Apocynum* believed well adapted as a succedaneum for digitalis.—

DOSES: *Antiperiod.* & *diuret.*, 0.12–0.3 Gm. (2–5 grn.); aver. dose 0.75 Gm. (12 grn.); *emetic*, 1–2 Gm. (15–30 grn.).—Alcoh. extr., 0.06–0.25 Gm. (1–4 grn.).—Fl'dextr., 0.3–1.3 cc. (5–20 M); *Max. D.*: 2 cc. (30 M) single, 6 cc. (90 M) daily.—Tr. (1:10), 0.3–4 cc. (5–60 M).

Apocynum Androsæmifolium

Dogbane; Spreading Dogbane; Bitter Root; Milk Ipecac; Wild Ipecac; Rheumatism Weed.—Root of *Apocynum androsæmifolium*, L. Apocynaceae.—HABIT.: North America.—CONSTIT.: Apocynin; apocynin (glucoside); volat. oil; bitter extractive.—ACTION: Diaphor.; Diuret.; Cathar.—USES: Chronic constip. & dropsical conditions.—DOSE: Fl'dextr., 0.3–2 cc. (5–30 M).

Apomorphine Hydrochloride Merck—U.S.P. X—Cryst.

$C_{17}H_{17}NO_2 \cdot HCl + \frac{1}{2}H_2O = 312.71$.—Fr. morphine by heating w. HCl in sealed tubes.—Minute, grayish-wh. or wh., lustrous, odorl. cryst.; feeble bitter taste; soon become green on expos. to light & (partic. moist) air.—SOL.: 50 W., & 50 A. at 25° C., 17 W. at 80° C., & v. sltly in C. or E., U.S.P. The soluts do not affect litmus paper, but grad'ly become green on expos. to air. The greening may be retarded f. a long time by add'g a little HCl when mak'g the solut., but the add'n of too much HCl causes pptn of apomorphine hydrochloride.—ACTION: Emetic; Expector.; Sed.; Hypnot.; Cardiac Depressant.—USES: *Intern.*, as expector. in severe bronchial catarrh, asthma, phthisis, pneumonia, & diphth.; as emetic (also subcut.) in croup & pneumonia.—*Subcut.*, in poisoning, & to dislodge foreign bodies in the esophagus; as hypnot. in insomnia in the insane, in delirium, and in alcoholism.—In *enema*, as sudorific in puerperal eclampsia.—DOSE: *Expector.*, adults, 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.); children 0.0003–0.0005 Gm. ($\frac{1}{200}$ – $\frac{1}{120}$ grn.); *emetic*, in croup 0.01 Gm. ($\frac{1}{6}$ grn.); in *poisoning* & to dislodge foreign bodies fr. esophagus, subcut. 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); as *hypnot.* subcut. 0.002–0.01 Gm. ($\frac{1}{30}$ – $\frac{1}{6}$ grn.) (doses of 0.002–0.003 Gm. [$\frac{1}{30}$ – $\frac{1}{20}$ grn.] as also 0.01–0.02 Gm. [$\frac{1}{6}$ – $\frac{1}{3}$ grn.] have also been recommended for this purpose); as *sudorific* in puerperal eclampsia, 0.01 Gm. ($\frac{1}{6}$ grn.); as *emetic* by enema, 0.02 Gm. ($\frac{1}{3}$ grn.) diss. in 10–25 cc. (2½–6 fl. dr.) water.—Ordinary dose *intern.*, 0.006–0.015 Gm. ($\frac{1}{10}$ – $\frac{1}{4}$ grn.), & *subcut.* 0.003–0.006 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.) B.P.; average dose (U.S.P.) as *expector.* 0.003 Gm. ($\frac{1}{20}$ grn.); & as *emetic* 0.005 Gm. ($\frac{1}{12}$ grn.) subcut.—MAX. D.: Variously stated by different pharmacopoeias at 0.01 Gm., 0.015 Gm., 0.02 Gm., ($\frac{1}{6}$ grn., $\frac{1}{4}$ grn., $\frac{1}{3}$ grn.) single, & 0.015 Gm., 0.05 Gm., 0.06 Gm. ($\frac{1}{4}$ grn., $\frac{3}{4}$ grn., 1 grn.) per day.—In VETER. MED., as *emetic* subcut.: *Dogs* 0.002–0.01 Gm. ($\frac{1}{30}$ – $\frac{1}{6}$ grn.), & *cats* 0.02–0.05 Gm. ($\frac{1}{3}$ – $\frac{1}{4}$ grn.). As *expector.* in pneum. & bronchial catarrh (partic. in distemper in dogs): *Horses & cattle*, 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.); *sheep & goats* 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); *pigs* 0.01–0.02 Gm. ($\frac{1}{6}$ – $\frac{1}{3}$

grn.); *dogs & cats* 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.) sev'l t.p.d. per os. Subcut. in morbid desire to lick or gnaw: *Cattle & sheep* 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.); *young cattle & horses* 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.); *calves* 0.02–0.05 Gm. ($\frac{1}{5}$ – $\frac{3}{4}$ grn.). Also used to prevent *roosters & parrots* pulling out their feathers.—ANTID.: Strychnine, 0.006–0.007 Gm. ($\frac{1}{10}$ – $\frac{1}{9}$ grn.), chloral hydrate, chlorof., ice, ether injections, sinapisms.—INCOMP.: Alkalies, potass. iodide, ferric chloride, picric acid, tannic acid, silver nitrate. Physiol. antid. to chloral hydrate & chlorof.—CAUT.: Use only fresh solut. subcut. or alarming symptoms may occur, & avoid use of boric acid as a preservative in making such solut. The remedy is contraindicated in weak or fatty heart. Keep dark & well stoppered.

do. —Amorphous

Gray, amorph. powd.—SOL.: A.; more sol. in W. than cryst. form.—USES: As preceding.—Acc. to Guinard, cryst. apomorphine differs fr. the amorph. physiologically in that with the former the stimulating action predominates, whereas the amorph. exhibits purely narcotic properties. In pica in *cattle* equal parts of the cryst. & amorph. apomorph. are injected subcut., in doses of 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) of each, for 3 consecutive days.—CAUT.: Keep in well-stopp. amber bot.

APOMORPHINE METHYLBROMIDE—see Euporphen

APPLE OF PERU—see Stramonium

APPLE OIL—see *iso*-Amyl *iso*-Valerate

Apothesine

Diethylaminopropylcinnamate Hydrochloride. $-(C_2H_5)_2N.(CH_2)_3.COO.CH:CH.C_6H_5.HCl = 297.74$.—Sm., wh., odorl. cryst.; faint bitter, numbing taste.—SOL.: W.; A.; sltly acetone or E.—MELT.: $136^\circ C$.—USES: Local aneth. like procaine.—DOSE: 0.03 Gm. ($\frac{1}{2}$ grn.) ev. $\frac{1}{2}$ hr; *subcut.*, 0.036–0.075 Gm. ($\frac{3}{5}$ – $1\frac{1}{4}$ grn.).—For local aneth., 0.5%–2% solut., gen'ly w. adrenalin; on cornea, in 2% solut. f. minor anesthes., & 4% solut. f. complete aneth.; f. spinal aneth. 2 cc. (30 M) of 4% solut.

APYONINE—see Pyoktanin Yellow

AQUA AMMONIÆ—see Water Ammonia

AQUA FORTIS—see Acid Nitric

AQUA REGIA—see Acid Nitrohydrochloric

Aquopentammincobalt Chloride

Roseocobalt Chloride.— $[Co(NH_3)_5.H_2O]Cl_3 = 268.53$.—Brick-red, cryst. powd.—SOL.: W.

ARABIAN TEA—see Catha

Arabinose

Dextro-Arabinose; Pectinose; Pectin Sugar.— $C_5H_{10}O_5 = 150.11$.—An aldopentose fr. beet gum.—Wh. cryst.—SOL.: Eas. W.; alm. insol. absol. A. & E.—MELT.: $160^\circ C$.

Aragonite—Mineral

OCCUR.: Bilin (Bohemia).—COMPOS.: $CaCO_3$.—CRYST. SYST.: Rhomb.—LUSTER: Vitr.—

COLOR: Usually wh., somet. yellow, gray, green or violet.—STREAK: Wh.—FRACT.: Subconch.—HARDN.: 3.5–4.—SP. GR.: 2.93–2.95.—USES: As of marble.

Aralia—N.F. V

Spikenard; American Spikenard; Spignet; Petty-morrel; Spice-berry.—Dried Rhizome & roots of *Aralia racemosa*, L., Araliaceæ.—HABIT.: Northeastern U. S.—CONSTIT.: Starch; pectin; sugar; resin; volat. oil (trace).—ACTION: Alter.; Diaphor.; Stim.—USES: Intern. pulmon. affect., syph., skin dis., & rheumat.—Extern., decoction used as wash in indolent ulcers.—DOSE.: Average, 2 Gm. (30 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

ARAN'S CHLORATED ETHER—see Ethyl Chloride Hydrochlorated

“ARARIBA”—see Araroba

Araroba—B.P.

Goa Powder; Crude Chrysarobin; Brazil Powder; Ringworm Powder; “Arariba” so-called.—Found in cavities in the trunk of *Andira Araroba*, Aguiar, (Vouacapoua Araroba, Lyons) Leguminosæ, & freed as much as possible fr. fragments of wood, dried & powdered.—HABIT.: Brazil; Bahia, in damp forests.—Light-yellow powd. when fresh, but brownish on exposure; sltly cryst.; rough; inod.; bitter.—CONSTIT.: Chrysarobin abt 80%; chrysophanic acid; gum; resin (2%); bitter extractive; ararobinol; methyl ether of emodin.—USES: Chiefly as source of chrysarobin; also extern. in skin dis., like chrysophanic acid.

ARBOR VITÆ—see Thuja

Arbutin Merck

$C_{12}H_{16}O_7 = 272.19$.—Glucoside fr. lvs *Arctostaphylos Uva-Ursi*, Spr. (Bearberry).—Wh., bitter, odorl., silky needles.—SOL.: 8 cold, 1 boil g, W.; 16 A.; insol. C., E., CS_2 .—MELT.: $168^\circ C$; $195^\circ C$. when anhydr. (N.N.R.). The melt.-pt varies w. the source. Fr. leaves cont'g little methylarbutin, an arbutin having a higher melt.-pt is obt'd than when the lvs cont. much methylarbutin. Pure arbutin melts at 198° – $200^\circ C$.—ACTION: Diur.—USES: In Bright's dis., bladder catarrh, urethritis, renal affections, & dropsy of the pericardium, inst. of uva-ursi.—Techn., as test f. NO_3 (Reichard).—DOSE: 1–1.5 Gm. (15–23 grn.) 3 or 4 t.p.d., or 4–6 Gm. (60–90 grn.) per day; as diuret., 1 Gm. (15 grn.) p.d.

Arcanol

Combination of eq. wts methylatophan & acetylsalicylic acid, mkt'd in tabl. of 1 Gm. (15 grn.) each.—USES: Acute gripe, influenza, colds, etc.—DOSE: 1–5 tabl. p.d.

ARCANUM DUPLICATUM—see Potassium Sulphate

ARCHIL—see Orchil

Areca Nuts—B.P.C.

Betel Nuts; Pinang.—Nuts (seeds) of *Areca Catechu*, L., Palmae.—HABIT.: East Indies.—Seeds are hard & heavy; frond-conical; depressed at base; extern. brown, mottled with

fawn color; intern. brownish-red with whitish veins; fresh seed has a faint cheese-like odor; astring. sub-acrid taste.—**CONSTIT.**: Arecoline; arecaine; arecaidine; guvacine; choline; red amorph. tannin (15%); fat (14%); resin.—**ACTION**: Masticatory; Mild Astring.; Teniacide.—**DOSE**: 1–4 Gm. (15–60 grn.).—In **VETER. MED.**, as Lax. & Teniaf.; *dogs*, up to 5 Gm. (75 grn.) per kilo of body weight; *horses*, MAX. D. 100 Gm. (3¼ oz.); *cattle*, MAX. D. 250 Gm. (8 oz.).

ARECAIDINETHYLESTER HYDROBROMIDE—see Homoarecoline Hydrobromide

Arecoline Hydrobromide Merck

$C_8H_{13}NO_2 \cdot HBr = 236.08$.—Salt of alkaloid fr. fruit of *Areca Catechu* L. (Betel Nut).—Fine, wh., bitterish, optically inactive cryst., permanent in air.—**SOL.**: Eas. W. & hot A.; sltly C., E.—**MELT.**: Abt 168° C.—**ACTION**: Anthelmintic; Sialag.; Cath.; Myotic. Said to act on the heart like muscarine.—**USES**: *Intern.*, obstinate constip. & worms.—*Extern.*, glaucoma.—**DOSES**: As anthelmintic, 0.004–0.006 Gm. ($\frac{1}{15}$ – $\frac{1}{10}$ grn.).—**APPL.**: As myotic in glaucoma etc., 1 drop of a 0.5%–1% aqu. solut. (a 1%–4% solut. has also been advocated).—In **VETER. MED.** in *horse* colic, laminitis, blind staggers, & hemoglobinemia, subcut. 0.02–0.05–0.08 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ –1½ grn.); in severe cases of colic with cardiac weakness, single doses of 0.02 Gm. ($\frac{1}{2}$ grn.). In *cattle* in digestive debility & parturitional paresis, 0.04–0.06 Gm. ($\frac{1}{2}$ –1 grn.). In *dogs*, f. tapeworm, 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.); & as a myotic in iritis by instill. of a 0.5%–1% solut.—**MAX. D.** for *horses* 0.1 Gm. (1½ grn.), & for *cattle* 0.08 Gm. (1½ grn.), subcut.

Arecoline Hydrochloride Merck

$C_8H_{13}NO_2 \cdot HCl = 191.62$.—Wh. cryst.—**SOL.**: W. A.—**MELT.**: Abt 158° C.—**ACTION**, **USES** & **DOSES**: as of the hydrobromide.

Arecoline-Eserine

Mixt. of 1 arecoline hydrobromide & 1 physostigmine (eserine) sulphate.—Exhibits the combined therapeutic properties of its components.—**ACTION**: Myotic; Cathart.—**USES**: Colic of *horses*.—**DOSE**: 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) subcut. for *horses*.

Argenol

A silver albuminoid; 10% Ag organically combined.—Brown crystals.—**SOL.**: Eas. W., G.—**ACTION**: Antisep.; Bactericide; Alternative.—**USES**: Urethritis, ulcers, & affect. of eye, nose, & throat.

Argentamine

10% solut. silver nitrate in 10% aqu. solut. ethylenediamine.—Colorl., alkaline liq., turn. yellow on expos.; coagulates albumin but sltly.—**MISC.**: W.—**ACTION**: Antisep.; Astring.—**USES**: *Intern.*, intest. tuberc., & gastric & intest. infections in childr.—*Extern.*, inst. of silver nitrate, or corros. sublimate.—*Techn.*, as stain in microscopy.—**DOSE**: Childr. 4–15 cc. (1–4 fl. dr.) of 0.5%–0.75%–1% solut.—**APPL.**: Like silver nitrate, or corros. sublimate in gonorr., in 1:1000–250 solut.—In **VETER. MED.**,

in purulent catarrh of mucosa; in ophthalm., in 3%–5% solut.

Argentide

A solut. of silver iodide ea. fl. oz. of which contains 100 grains silver salt; when added to W., AgI is pptd in fine powd.—**ACTION**: Bactericide.—**USES**: in aqu. susp. in genito-urinary dis. (gonorr., cystitis, etc.).

Argentol

Silver Oxyquinolinesulphonate.— $C_9H_5N(OH) \cdot SO_3Ag = 332.04$.—Yellow powd.; 32.5% Ag.—**SOL.**: Diffic. W., A., E.; somewh. more sol. hot W.—**ACTION**: Antisep.—**USES**: *Intern.*, as intest. antisep.—*Extern.*, skin dis., syph., gonorr., &c.—**DOSE**: Up to 1 Gm. (15 grn.) p.d.—**APPL.**: Inj., 1:1000–300 solut., or 1:100–50 oint.

Argentose

Soluble comp'd of Ag & a nucleoprotein.—Black scales; 30% Ag.—**SOL.**: Freely in W., G.—**ACTION**: Astring.; Germicide.—**USES**: As of silver nitrate in gonorr., vaginitis, catarrhal conjunctiv., otitis, rhinitis, &c.; also prophylact. in ophthalmoblennorrhea.

ARGENTUM CREDÉ—see Collargol

ARGILLA—see Aluminum Hydroxide; Kaolin

ARGOCHROM—see Methylargyl

Argon

A=39.90.—Elemental gaseous constituent of air, discov. by Rayleigh, 1894.—Colorl., inert gas.—**SOL.**: Abt 5% by vol., & 1% by wt. in W.—**Sp. Gr.**: 1.378 (air=1).—**BOIL.**: –186.1° C.—**MELT.**: –187.9.—**USES**: Filling incandesc. bulbs inst. of nitrogen; inst. of H in gas thermometers; also in chemical work as inert gas inst. of H.

Argonin

Casein-Silver; Silver-Casein.—Soluble silver-casein salt, fr. sodium-casein w. silver nitrate & alc.; 4.2% Ag.—Fine, grayish wh. powd.—**SOL.**: Eas. W. (slt alk. reaction), alkaline soluts, NaCl solut., blood serum.—**ACTION**: Non-irritant Antisep.; does not coagulate albumin of the tissues.—**USES**: As of silver nitrate, in gonorrh.; also as enema as astring. in dysentery.—**APPL.**: 1%–2% solut. in gonorr.; 3% solut. in blennor. neonatorum.—**INCOMP.**: Acids.—**CAUT.**: Keep dark.

Argoplex

Silver Polyglycin Nitrate.— $Ag(C_2H_5O_2N)_{12} \cdot NO_3 = 1070.58$.—Wh., cryst. powd.; cont. 10% Ag.—**SOL.**: W.—**ACTION**: Antisep.—**USES**: As antisep., like other organ. Ag salts, in 0.03%–0.25% solut.; also in infectious processes.

Argos

Silver Vitellin; Silver Nucleinate.—20%–25% Ag.—**SOL.**: Eas. W., G.; insol. A., oils.—**ACTION**: Bactericide.—**USES**: Urethral & vesical affections, urethritis, vaginitis; dis. of eye, ear, nose, & throat (conjunctivitis, corneal ulcers, post-nasal catarrh, etc.); also as high injection in dysentery, infantile catarrh, colitis, gastric ulcer, & ulcerative enteritis.

Argyn

Silver-Proteinate.—Abt 25% Ag.—ACTION & USES: As of o. silver protein compds.—APPL.: 10%–40% solut.

Argyrodit—Mineral

OCCUR.: Freiberg, Saxony.—COMPOS.: GeS_5Ag_6 .—CRYST. SYST.: Reg. holohedr.—LUSTER: Metal.—COLOR: Steel gray on fresh fracture w. tinge of red turning to violet.—HARDN.: 2.5.—SP. GR.: 6.085–6.111.—USES: Rare silver ore; as source of germanium.

Argyrol

Silver Vitellin.—Black, glistening, hygrosc. scales; 20%–25% Ag.—SOL.: Eas. W., G., insol. A., oils.—ACTION: Antisep.—USES: As of silver nitrate in dis. of eye, throat, nose, ear, & genito-urinary organs. Also in amebic dysentery.—APPL.: As irrigation in endometritis, gonorr., &c., in 1–4:1000 solut.; as inj. in gonorr., in 3%–5% solut. (or even stronger); in conjunctivitis, 10% solut., & in ophthalm. neonat., 20% solut.—INCOMP.: Acids; most neutral & acid salts in strong solut.

Arheol

Santalol.— $\text{C}_{15}\text{H}_{26}\text{O}$ = 222.29.—A sesquiterpene alcohol; chief constit. of sandalwood oil.—Colorl., oily liq.—SOL.: A.; insol. W.—BOIL.: Abt 300° C.—SP. GR.: 0.968 at 15° C.—USES: As of sandalwood oil in urethritis, cystitis, vesical catarrh, & partic. in gonorrh.—DOSE: 0.4–0.6 cc. (6–10 M) 9–12 t.p.d.

Arhovin

$\text{C}_{10}\text{H}_{13} \cdot \text{C}_6\text{H}_4(\text{COO} \cdot \text{C}_2\text{H}_5)(\text{C}_6\text{H}_5)_2\text{NH}$ = 451.43.—Addition prod. of diphenylamine & thymol-benzoic-acid ester.—Oily, yellowish liq.; aromat. odor; cooling, yet burning taste.—SOL.: A., C., E., oils; insol. W.—SP. GR.: 1.055.—BOIL.: 218° C.—ACTION: Antigonorrheic.—USES: Gonorr., cystitis, uric-acid diathesis, gonorrheic rheum., &c.—DOSE: 0.25 cc. (4 M) in gelat. caps. 3–6 t.p.d.—APPL.: 1%–2% solut. in oil on tampons in vagina; in suppos. (each 0.05 Gm. [$\frac{3}{4}$ grn.] w. 1–2 Gm. [15–30 grn.] oil theobroma).

Aristochin

Diquinine Carbonic Ester; Carbonyl Quinine; Aristochin. — $\text{CO}(\text{C}_{20}\text{H}_{23}\text{N}_2\text{O}_2)_2$ = 674.61.—Wh., tastel, powd.; 96.1% quinine.—SOL.: Eas. acids; diffic. cold A.; more read. hot A., C.; alm. insol. E.; insol. W.—MELT.: 187° C.—ACTION: Anti-malarial, like quinine.—USES: Malaria, bronchial asthma, neuralgia, cephalalgia, tonsillitis, whoop.-cough.—DOSES: In malaria, 0.5–1 Gm. ($7\frac{1}{2}$ –15 grn.) 3 t.p.d.; in bronchial asthma, 0.4 Gm. (7 grn.) 3 t.p.d.; in typhoid, neuralg., & tonsillitis, 0.25–0.5 Gm. (4–8 grn.) 3 t.p.d.; in whoop.-cough, nurslings 0.01 Gm. ($\frac{1}{2}$ grn.) f. each month of age, larger children 0.03 Gm. ($\frac{1}{2}$ grn.) f. each year of age.—MAX. D.: For children 11–12 months old 0.3 Gm. (5 grn.) p. day, & f. children 4 yrs old only exceptionally more than 1.2 Gm. (18 grn.) p. day.

ARISTOL—see Thymol Iodide

Aristolochia—B.P.C.

Dried stem & root of *Aristolochia indica*, L., Aristolochiaceæ.—HABIT.: India.—CONSTIT.: Aristolochine; volat. oil (prob. cont'g borneol); aristin; aristic acid; resin, tannin & starch.—ACTION: Bitter Tonic.—USES: As of gentian & serpentary.—DOSE: Tr. (1:5) 2–4 cc. (30–60 M).—Conc. liquor (1:2), 1–8 cc. (15–120 M).

ARISTOQUIN—see Aristochin

ARNAUDON'S GREEN—see Chromium Phosphate, Chromic

Arnica Flowers—N.F. V; B.P.; Fr. Cod.

Leopard's Bane; Wolf's Bane; Mountain Tobacco.—Dried flower-heads of *Arnica montana*, L., Compositæ.—HABIT.: Northern Europe; Asia; North America.—CONSTIT.: Volat. oil (0.5%–1%); arnicin; arnicine, arnistrol (arnidiol); anthoxanthine; fat; resin.—ACTION: Febrif.; Vulner.; Tonic; Stim.; Diur. Nervine; Rubef.; Emmenag.; Sternutatory.—USES: Paralysis, hemorrhages, chronic rheumat., mening., chron. catarrh of aged, dysentery, malaria, amenorrh., diarrh., dropsy, nephritis, &c.—Extern., in bruises & o. injuries.—DOSES: 0.3–1.3 Gm. (5–20 grn.), usually in tinct.; aver. dose 0.1 Gm. ($\frac{1}{2}$ grn.); chiefly used extern. as lotion.—Alcoh. extr., 0.2–0.6 Gm. (3–10 grn.).—Aqu. extr., 0.2–0.6 Gm. (3–10 grn.).—Fl'dextr., 0.3–1.3 cc. (5–20 M).—Tinct., 0.6–2 cc. (10–30 M).

do. Root—B.P.C.

Dried rhizome & rootlets of *Arnica montana*, L., Compositæ.—HABIT.: Northern Europe; Asia; North America.—CONSTIT.: Arnicin; volat. oil (0.5%–1%); resin; gum; wax; tannin; inulin.—ACTION: Tonic; Alter.; Antisep.; Antipyr.—USES. Intern., in diar., & as febrif.—Extern., as vulnerary.—DOSES: 0.3–1.3 Gm. (5–20 grn.) as decoct.—Alcoh. extr., 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—Tinct., 0.3–2 cc. (5–30 M).

Arnicin

Bitter substance fr. root *Arnica montana*, L.— $\text{C}_{20}\text{H}_{30}\text{O}_4$ = 334.34 (Walz).—Brown, viscid mass.—SOL.: A., E., amm. & alkal.; insol. W.

Arnold's Solution—Test for Acetoacetic Acid

(a) Solut. 1 Gm. paramidoacetophenone & 2 Gm. conc. HCl in 100 cc. W.; (b) solut. 1 Gm. NaNO_2 in 100 cc. W.—In use, 2 vol. of solut. a are mixed w. 1 vol. solut. b.—On adding NH_4OH to a mixt. of equal vol. of liq. (e.g. urine), & test solution, a brownish-red color or ppt. forms if acetoacetic acid present; on then add'g excess conc. HCl, color changes to purplish-violet.

Arnold-Mentzel's Solution—Test for H_2O_2

Solut. 1 Gm. vanadic acid in 100 Gm. dil. H_2SO_4 .—Gives w. H_2O_2 a permanent red color.—Sensitiveness, 0.0006%.

ARNOTTA—see Annatto

ARRHENAL = SODIUM METHYLARSENATE

ARROW-ROOT STARCH—see Starch, Arrow-root

ARROW WOOD—see *Euonymus*; *Frangula*

Arsacetin

Sodium Acetylarsanilate, or Acetyl-*p*-aminophenylarsinate.— $C_6H_4(NH.CH_3CO)(AsO.OH.ONa) + 4H_2O = 353.14$.—Wh., odorl., tastel., cryst. powd.; 21.2%–21.7% As.—Sol.: Abt 10 cold, abt 3 hot, W.—ACTION: Antisyph.—USES: Anemia, trypanosomiasis, syph., malaria, recurrent fever; dis. of metabolism, etc.—DOSE: Adults, 0.05 Gm. ($\frac{3}{4}$ grn.) 3 t.p.d.; childr., 0.005 Gm. ($\frac{1}{12}$ grn.) 2 t.p.d.—*Hypod.*, 0.1–0.5 Gm. ($1\frac{1}{2}$ – $7\frac{1}{2}$ grn.).—CAUT.: High doses may give rise to visual impairment!—MAX. D.: 0.2 Gm. (3 grn.) single, 0.5 Gm. ($7\frac{1}{2}$ grn.) p.d.

Arsan

Arsenglidine.—Brown, Amorphous powd.; mkt'd in tabl. ea. cont. 0.002 Gm. ($\frac{1}{30}$ grn.) As.—USES: As of As.—DOSE: 1–2 tabl. 3 t.p.d.; childr., $\frac{1}{2}$ –2 tabl. p.d.

ARSENGLIDINE—see *Arsan*

Arsenhemol

Hemol w. 1% As_2O_3 organically combined.—Brown insol. powd.—ACTION: Alter. & Hematonic.—USES: Skin dis., anemia, & neuroses; no untoward action on stomach.—DOSE: 0.1 Gm. ($1\frac{1}{2}$ grn.) 2–3 t.p.d. in pills, incr. dose by 1 pill ev. 4 days, till 10 pills taken daily.

Arsenic Metal Merck—Cryst.

Arsenicum; Arsenium.—As = 74.96.—First recognized by Albertus Magnus in 13th century; obt'd in 1694 by Schröder; obt'd in pure form in 1733 by Brandt.—Steel-gray, brittle, lustr., metal-like, odorl., tastel., cryst. mass.—Sp. Gr.: 5.73.—MELT.: 850° C. under pressure.—Volat. above 100° C., but sublimates at abt 616° C.—USES: *Techn.*, in alloys; in extraction of nickel; manuf. arsenic sulphides, insect & rodent poison, shot, glass, &c.—ANTID.: Same as for arsenic trioxide.

do. Merck—Powd.

Heavy, black powd.

do. Native—Mineral

OCCUR.: Germany; Bohemia; Hungary; Norway; Mexico; New Zealand.—COMPOS.: Native arsenic; As.—CRYST. SYST.: Hexag. rhombohedr.—LUSTER: Metal.—COLOR: Tin-wh., tarnishing to black.—STREAK: Tin-wh.—FRACT.: Gran.—HARDEN.: 3.5.—Sp. Gr.: 5.63–5.73.—USES: Prep. As_2O_3 .

ARSENIC-ACID ANILID—see *Acid Arsanilic*

Arsenic Bromide Merck—Arsenous

Arsenic Tribromide.— $AsBr_3 = 314.72$.—Yellowish-wh., hygrosc. cryst.—Decomp. by W. into As_2O_3 & HBr.—MELT.: Abt 30° C.—BOIL.: Abt 220° C. Volat. unchanged. —ACTION: Alter.—USES: Diab.—DOSE: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.).—MAX. D.: 0.01 Gm. ($\frac{1}{6}$ grn.), single.—ANTID.: Same as for arsenic trioxide.—Used also as solvent in cryoscopic determinations.—CAUT.: Keep well stoppered. Poisonous!

ARSENIC BUTTER—see *Arsenic Chloride*

Arsenic Chloride—Arsenous

Butter of Arsenic; Caustic Arsenic Chloride; Arsenic Trichloride; Fuming Liquid Arsenic.— $AsCl_3 = 181.34$.—Yellowish, oily liq.—Sol.: Little W.; decomposed by much W. into As_2O_3 & HCl; eas. sol. in A., E., oils.—BOIL.: 130° C.—Sp. Gr.: 2.167 at 20° C.—MELT.: –18° C.—ACTION: Alter.—USES: *Intern.*, skin dis.; *extern.*, as caustic.—*Techn.*, as solvent for S, P, KI, & RbI; as catalyst in manuf. CS_2 & CCl_4 ; imparting luster to ceramics.—DOSE: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.); in chorea, 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) p.d.—ANTID.: Same as for arsenic trioxide.—CAUT.: Very poisonous!

ARSENIC DISULPHIDE } see *Arsenic Sulphide, Red*
ARSENIC GLASS, RED }

Arsenic Iodide Merck—Arsenous—U.S.P. X

Arsenic Triiodide.— $AsI_3 = 455.72$.—Orange-red, odorl. powd.—Sol.: 12 W. w. partial decomp. at 25° C., & in A., C., E. & CS_2 , U.S.P.; (19 CS_2 , 42A. [90%], B.P.C.).—ACTION: Alter.; Antisep.—USES: *Intern.*, mammary cancer, scrofula, lepra, impetigo, & chron. & syphilitic skin dis.—*Extern.*, in 0.5% oint. in psoria, lupus, lepra, &c.—DOSES: 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.) sev'l t.p.d.; in scrofula, 10–40 drops of a 1% solut. 1–2 t.p.d., v. grad. incr.—Aver. dose, 0.005 Gm. ($\frac{1}{12}$ grn.), U.S.P.—Also used in form of Donovan's Solut. (arsen. iod. 1, mercuric iod. 1, & water to make 100).—MAX. D.: 0.025 Gm. ($\frac{6}{12}$ grn.) single; 0.04 Gm. ($\frac{2}{5}$ grn.) p.d.—ANTID.: Same as for arsenic trioxide.—INCOMP.: Water.—CAUT.: Handle w. care; keep fr. air & light.—Poisonous!

ARSENIC, LIQUID, FUMING—see *Arsenic Chloride*

Arsenic Pentasulphide—Fused

$As_2S_5 = 246.10$.—Brownish yellow, glassy, amorphous, highly refractive mass.—Sol.: Alkalies & alkali sulphides; insol. W.—USES: In thin sheets as a light filter.

ARSENIC PENTOXIDE—see (Acid) *Arsenic Anhydride*

ARSENIC, RUBY—see *Arsenic Sulphide, Red*

ARSENIC SESQUIOXIDE—see *Arsenic Trioxide*

Arsenic Sulphide Red Merck—Powd.

Arsenic Disulphide; Realgar; Red Orpiment; Ruby Arsenic; Red Arsenic Glass.— $As_2S_2 = 214.04$.—Brownish-red powd., or amorph. masses.—Sol.: Alkalies, their sulphides & carbonates.—Ignites at high temp.; burns w. blue flame.—USES: *Techn.*, as pigment in painting; in fireworks as blue fire & to give an intense white flame; manuf. shot; calico-printing & dyeing; tanning & depilating hides.

Arsenic Sulphide Yellow Merck—Arsenous—Techn.—Lump and Powd.

Arsenic Trisulphide; Orpiment; Auripigment; Arsenic Yellow; King's Yellow; King's Gold.— $As_2S_3 = 246.10$.—Yellow or orange powd.—Sol.: Alkalies, their sulphides & carbonates.

—USES: *Extern.*, as depilatory in var. skin dis., & as caustic in cancer, chancres, purulent conjunctivitis, etc.—*Techn.*, as pigment; reduc'g agent; depilating hides; manuf. oil cloth & linoleum; pyrotechnics; in veter. medicine for remov. warts fr. horses.

do. —Precip.

Precipitated Orpiment; Precip. Arsenic Trisulphide, &c.—Very fine yellow powd.—*SOL.*: Alkal., their carbonates, & sulphides.—*USES*: Depil. & caustic; also techn.

ARSENIC TRIBROMIDE—see Arsenic Bromide

ARSENIC TRICHLORIDE—see Arsenic Chloride

ARSENIC TRIIODIDE—see Arsenic Iodide

Arsenic Trioxide Merck—Reagent—Lumps or Powd.

Arsenous Acid; Arsenous Anhydride.— $\text{As}_2\text{O}_3 = 197.92$.—Wh., amorph. or transpar. glassy lumps, or cryst. pieces or wh. powd.—*SOL.*: Abt 50–60 W.; sltly A., E.; readily in soluts of alkali hydroxides or carbonates.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Carbonaceous Matter.....	0.000%
Insol. Matter.....	0.01%
Chloride (Cl).....	0.005%
Sulphide (S).....	0.001%
Antimony Oxide (Sb_2O_3).....	0.020%
Foreign Heavy Metals.....	0.000%
Iron (Fe).....	0.000%

USES: Reducer; prepar'g standard soluts f. determ. Cl, Br, I, CrO_3 ; starting material f. alkalimetric soluts; detect'g acetic & metastannic acids; quant. determ. Hg accord. to Feit.

Arsenic Trioxide Merck—C.P.—Powd.

Acid Arsenous; Arsenic Sesquioxide; White Arsenic; Arsenous Oxide or Anhydride.— $\text{As}_2\text{O}_3 = 197.92$.—Wh., opaque, powd.; or amorph., transp., colorl., glassy lumps, or wh., cryst., porcelain-like lumps; odorl.; tastel.—*SOL.*: 50–60 W., but solub. varies, being increased by HCl or alkalies; sltly A., E.; eas. in soluts of alkali hydroxides or carbonates.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.100%
Matter Insol. in NH_4OH	0.030%
Sulphide (S).....	0.005%
Foreign Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Lumps or Powd.

DESCRIPTION: As preced'g.—*SOL.*: W., & sltly in A., E., freely in G., & also in HCl & alkal. soluts, U.S.P.; (v. slowly in 65 W., B.P.).—*SUBL.*: Abt 200° C. when rapid. heated, U.S.P.—*ACTION*: Antiper.; Antisep.; Alter.—*USES*: *Intern.*, malar. fev., anemia, chlorosis, skin dis., chorea, neural., gastralgia, psoriasis, eczem., uterine disord., diab., bronch., etc.—*Extern.*, remov. warts, cancers, &c.—*DOSE*. 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.) 3 or 4 t.p.d.; aver. dose, 0.002 Gm. ($\frac{1}{30}$ grn.).—*MAX. D.*: 0.005 Gm. ($\frac{1}{12}$ grn.) single; 0.01 Gm. ($\frac{1}{6}$ grn.) p. day.—

APPL.: On neoplasms large amounts should be used, to get quick results; otherwise it is dangerous. Must be kept from healthy tissues when applied, or dangerous absorption will occur.—In *VETER. MED.*, in asthma, strangles, goiter, chron. bronchitis, etc.; *horses & cattle*, 0.1–0.5 Gm. ($\frac{1}{16}$ –8 grn.); *sheep & pigs*, 0.01–0.05 Gm. ($\frac{1}{16}$ – $\frac{3}{4}$ grn.); *dogs*, 0.001–0.005 Gm. ($\frac{1}{80}$ – $\frac{1}{12}$ grn.); *fowl*, 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.), also extern. f. tumors, mange, capped hock, in solut. or oint.—*ANTID.*: Emetics; stomach siphon if seen immediately; hot milk & water w. zinc sulphate or mustard. After vomiting, give milk or eggs, & magnesia in milk. If saccharated iron oxide or dialyzed iron is handy, use it. If tinct. of iron and ammonia water are within reach, precip. former w. latter, collect ppt. on a strainer, & give it moist. Always give antidotes, however hopeless the case may appear to be.—*INCOMPAT.*: Tannic acid, KI, lime-water, infusion cinchona, alkaloids, salts of iron, mercury, magnesium, &c.—*CAUT.*: Guard w. ev. care against mistake or accident. Highly poisonous!

do. Merck—Technical—Powd.

By-product in working cobalt, nickel, silver, zinc, & tin, ores.—Wh., porcelain-like lumps, or wh. powd.—*SOL.*: HCl (eas. w. gentle heat).—*USES*: In paints (as Paris green, etc.), manuf. glass, preserv'g hides, as antisep., for killing flies & other insects, & rodents; manuf. aniline dyes, enamels, etc.; in sheep dips, & weed killers.—*CAUT.*: Highly poisonous!

ARSENIC TRISULPHIDE—see Arsenic Sulphide, Yellow

ARSENIC, WHITE—see Arsenic Trioxide

ARSENIC, YELLOW—see Arsenic Sulphide, Yellow

ARSENIC-NICKEL—see Niccolite

ARSENICAL NICKEL—see Gersdorffite

ARSENICAL PYRITES—see Arsenopyrite

ARSENICAL SOLUTION—see Solution Potassium Arsenite

ARSENOBENZENE (DI)HYDRO-CHLORIDE } see Arspen-amine

ARSENOBENZOL BILLON }

“ARSENOFERRATIN”—see Arsenoferrate, Tablets

Arsenoferrate

5% arsenoferratin, 0.3% Fe, & 0.003% As in organic combination; abt 15% alcohol; permanent, palatable solut.—*ACTION*: Efficient Hematinic; Alter.—*USES*: Anemia, chlorosis, dermatoses, chorea minor, epilepsy, syph., gen'l weakness, Basedow's dis., functional nervous dis., etc.—*DOSE*: Adults, 4–12 cc. (1–3 teaspoonfuls) 3 t.p.d.; children, 4 cc. (1 teaspoonful) 2–3 t.p.d.—*NOTE*! Ea. teaspoonful cont's 0.015 Gm. ($\frac{1}{4}$ grn.) iron & 0.00015 Gm. ($\frac{1}{400}$ grn.) arsenic.

do. —Tablets, 4 Grains Each

Formerly known as “Arsenoferratin.”—*DOSE*: 1–2 tabl. 3–4 t.p.d.

Arsenopyrite—Mineral

Mispickite; Arsenical Pyrites.—COMPOS.: $\text{Fe}(\text{AsS})_2$, FeAsS .—CRYST. SYST.: Rhomb.—LUSTER: Metal.—COLOR: Silver wh. to grayish wh.—STREAK: Grayish black.—FRACT.: Uneven.—HARDN.: 5.5–6.—SP. GR.: 5.9–6.2.—USES: Prep. of As_2O_3 & o. As comp'ds.

Arseno-Triferrin

Iron Arsenoparanucleinate.—Abt 16% Fe, 0.1% As, & 2.5% P.—Orange-colored, tastel. powd.—SOL.: Dil. alkalies; insol. W.—ACTION: Hematinic.—USES: Anemia, chlorosis, neurasth., hyster., scrofula, skin dis., debility, & assisting Hg treatm. in syphilis.—DOSE: 1 tablet of 0.3 Gm. (5 grn.) ea. (in which form mkt'd), 3 t.p.d.; ea. tabl. = 0.05 Gm. Fe & 0.0003 Gm. As.

Arseno-Triferrol

Arom., alcoh. solut. Arseno-Triferrin; cont. 0.3% Fe, 0.05% P, & 0.002% organically comb'd As.—USES: As of Arseno-Triferrin.—DOSE: 15 cc. (1 tablespoonful, = 0.25 Gm. [4 grn.] arseno-triferrin) 3 t.p.d.

ARSENOUS ANHYDRIDE, or OXIDE—see Arsenic Trioxide

Arsphenamine—U.S.P. X

Arsenobenzol Billon; Arsenphenolamine, or Dioxydiaminoarsenobenzene, or Arsenobenzene, or Diaminodihydroxyarsenobenzene, (Di) Hydrochloride. — $\text{HCl} \cdot \text{NH}_2 \cdot \text{OH} \cdot \text{C}_6\text{H}_3 \cdot \text{As} : \text{C}_6\text{H}_3 \cdot \text{OH} \cdot \text{NH}_2 \cdot \text{HCl} + 2\text{H}_2\text{O} = 475.06$.—Not less than 30% As.—Light yellow, odorl. or sltly odorous, hygrosc. powd.; oxidizes on expos. to air, becoming darker & more toxic.—SOL.: W., A., v. sltly C., E.—Mkt'd in ampuls fr, which air is evacuated or displaced by an inert gas.—ACTION: Antisyph.—USES: Intraven. in syph., tabes, malaria; relapsing fever; inst. of As in dis. of skin, nerves, & blood; in filariasis; bilharziasis; chorea; frambesia; leprosy; lymphadenoma; sarcoma; paresis; pellagra; pernicious anemia; scurvy; variola; in yaws; & in syphilitic eye in iritis, retinitis, choroiditis, neuritis, & paral. of ocular muscle. Contraind. in optic atrophy, acute nephritis, fetid bronch., cachexias, & partic. where non-syphil. eye dis. exists.—DOSE: Adults 0.3–0.6 Gm. (5–10 grn.); childr., 0.2–0.25 Gm. (3–4 grn.); infants, 0.02–0.1 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.).—CAUT.: Arspenamine Solution by itself must never be injected. For injection add to the Arspenamine Solution 0.85 cc. of normal sodium hydroxide for each 0.1 Gm. Arspenamine.—Fatalities following the use of arspenamine are reported, & the following cautions are advocated: (1) The most exact technique; (2) dose of the drug carefully adapted to the individual case; (3) careful observation of urinary secretion before & during arspenamine administration, resorting to the most exact chemical & microscopical examination of the urine, particularly when the combined treatment is employed; observance of the patient's general condition (weight, appetite, sleep). If combined treatment used, give both mercury & arspenamine carefully. In old syph. or involvement of

deep organs arspenamine should be preceded by a course of Hg; (4) take into careful consideration every general reaction or rise of temperature following the use of arspenamine, & make a full investigation of the causes of such effect. (Reference publication: Kole-Zieler, *Handbuch der Salvarsantherapie*, 1924).—NOTE: Arsenobenzol Billon is a brand of Arspenamine U.S.P. X, manufactured by Merck & Co. Inc. by license of Les Etablissements Poulenc Frères, Paris. Mkt'd in sealed, evacuated ampuls cont'g 0.1, 0.2, 0.3, 0.5, & 0.6 Gm. ea., respectively, of arsenobenzol.

Arsphenamine Sodium

Sodium Arspenolamine; Sodium 3. Diamino-4. dihydroxy-1. arsenobenzene.— $\text{NaO} \cdot \text{NH}_2 \cdot \text{C}_6\text{H}_3 \cdot \text{As} : \text{C}_6\text{H}_3 \cdot \text{NH}_2 \cdot \text{ONa} = 410.08$.—Bright yellow powd., v. unstable in air.—SOL.: Readily W. w. alkal. reaction.—ACTION & USES: As of arspenamine; its advantage over the latter is that it does not require the addition of alkali before use.—DOSES: Adults, 0.45–0.9 Gm. (7–14 grn.).—NOTE: 3 parts arspenamine sodium = 2 parts arspenamine in As content, hence dose of salt is 50% greater. Solut. f. inj. must be prepared immed. after opening the container, & must be administered promptly.

ARSPHENAMINE-S—see Neoarsphenamine

ARSENPHENOLAMINE (Di) HYDROCHLORIDE—see Arspenamine

Artemisia Abrotanum

Southernwood.—Lvs of *Artemisia abrotanum*, L., Compositæ.—HABIT.: Southern Europe; Western Asia; cultiv. in U. S.—CONSTIT.: Volat. oil; abrotine.—ACTION: Tonic; Deobstruent; Anthelm.—DOSE: Fl'dextr., 2–4 cc. (30–60 M).—Also used extern. in arom. baths & poultices.

Artemisia Frigida

Sierra Salvia; Sage Bush; Mountain Sage; Wormwood Sage.—Herb of *Artemisia frigida*, Willd., Compositæ.—HABIT.: U. S. (Minnesota to Idaho, south to Texas; Colorado).—CONSTIT.: Bitter prin. (glucoside ?).—ACTION: Diuret.; Nerve Stim.—USES: Periodic fevers, rheumat., scarlet fever, diphth., &c.—DOSE: Fl'dextr., 4–8 cc. (1–2 fl. dr.).

Artemisia Vulgaris—Fr. Cod.

Mugwort; Mugweed.—Herb & root of *Artemisia vulgaris*, L., Compositæ.—HABIT.: Europe; Northern Africa; Asia; natur. in U. S.—CONSTIT.: Herb: Volat. oil; tannin.—Rqot: Volat. oil; tannin; resin.—ACTION: Herb: Aromat.; Emmen.; Antispasm.—Root: Tonic, particularly in epilepsy; Emmen.—USES: Eclampsia, gastric debil., febrile conditions, & tapeworm.—DOSES: Alcoh. extr., 0.12–0.6 Gm. (2–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

Artemisin

Oxysantonin ?— $\text{C}_{15}\text{H}_{18}\text{O}_4 = 262.22$.—Fr. seeds of *Artemisia maritima* (Wormseed), in which it is found with santonin, & which may be regarded as oxysantonin.—Wh. cryst.—SOL.: 3 hot A., 60 hot W. Combines w. C. to form an artemisin-chloroform sltly sol. in C.—MELT.: 203°C .—

USES: As stimulant of appetite; given in form of pills cont'g 0.0001 Gm. ($\frac{1}{600}$ grn.) each artemisin and quassine cryst., & 0.1 Gm. ($\frac{1}{2}$ grn.) ferrous oxalate.

Artosin

Merasin; 2-Phenylquinoline-4-carboxylic acid-o-anilidocarboxylic Acid.— $C_9H_5N(C_6H_5) \cdot CONH.C_6H_4COOH = 368.26$.—Comp'd of anthranilic acid & phenylcinchoninic acid.—Yellowish-white, tastel. powd.—SOL.: Eas. A., B., acetone, & in dil. alkali solut's.—MELT.: $226^\circ C$.—ACTION: Uric Acid Eliminant; Antipodagric.—USES: Gout, uric acid diathesis, art. rheum., neuralgia, & in arthritis of various etiology.—DOSE: 0.5 Gm. ($\frac{7}{12}$ grn.) 2-4 t.p.d.

ARUSA—see Adhatoda

Asafetida—U.S.P. X; B.P.; Fr. Cod.

Devil's Dung; Food of the Gods; Asafoetida.—Gum-resin fr. rhizome & roots of *Ferula Asafoetida* L., *F. foetida* Regel, & some o. species of *Ferula*, *Umbelliferae*.—HABIT.: Persia; Turkestan; Afghanistan.—SOL.: Not less than 50% alcohol-sol. extractive; yields a milky emulsion when triturated w. W.—CONSTIT.: Ethereal oil (6%–17%); resin (40%–60%, consist'g of ester of asaresinotannol & ferulic acid); gum (25%); vanillin; free ferulic (ferulaic) acid.—ACTION: Nervine; Antispasmodic.—USES: Hysteria, hypochondriasis, asthma, catarrh, flatul. constip., convulsions, spasms, whoop-cough, &c. Used in India, Persia, &c., as condiment & flavoring for foods.—DOSES: 0.3–1.3 Gm. (5–20 grn.) in pill or powd.—Fl'dextr., 0.3–1.3 cc. (5–20 M).—Tinct. (1:5), 0.6–2.6 cc. (10–40 M).

ASAFETIDA—see Asafetida

Asaprol Merck

Calcium Betanaphtholalphanonosulphonate; Calcinaphthol.— $Ca(OH.C_{10}H_6SO_3)_2 + 3H_2O = 540.45$.—Fr. betanaphthol, by H_2SO_4 .—Reddish-wh., odorl. powd.; sltly bitter, then sweet taste.—SOL.: 1.5 W.; 3 A.—Decomp. near $50^\circ C$.—ACTION: Analg.; Antisep.; Antirheum.; Antipyr.—USES: Intern., tubercul., acute & subac. art. rheumat., muscul. rheum., muscul. pains, influenza, typhoid, pharyngitis, amygdalitis, infectious angina, asthma, intercostal neural., sciatica, facial neural.; gout, diphth., whoop-cough, &c.—Extern., as gargle in 5% solut. in infectious angina; also as enema in doses of 5–7 Gm. (75–105 grn.).—Techn., as test f. alkaloids, & f. albumin in presence of albumoses & peptones (Riegler); also f. plastering wines inst. of gypsum (up to 10 Gm. per hectol.).—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.—MAX. D.: 6 Gm. (90 grn.) p. day.—APPL.: 2%–5% solut.—INCOMP.: Antipyrine & quinine.

ASARABACCA CAMPHOR—see Asaron

ASARIN—see Asaron

Asaron

Asarin; Asarum Camphor; Asarabacca Camphor.— $(CH_3O)_3.C_6H_2.(CH_2)CH_3 = 208.19$.—Fr. root *Asarum europaeum*, L. (*Asarabacca*).—

Wh. to yellowish cryst.; faint, biting taste.—SOL.: A., E., glacial acetic acid, CCl_4 ; sltly boil. W.—MELT.: Abt $60^\circ C$.—BOIL.: $296^\circ C$.—ACTION: Tonic; Antisep.

Asarum—N.F. V

Wild Ginger; Canada Snakeroot; Indian Ginger.—Dried rhizome & roots of *Asarum canadense*, L., *Aristolochiaceae*.—HABIT.: Canada to N. Carolina & Kansas.—CONSTIT.: Acrid resin, arom. volat. oil, methyl-eugenol, gum, chlorophyll, &c.—ACTION: Aromat.; Stim.; Diaphoret.—USES: Colic, & to sweeten the breath.—DOSE: Aver., 2 Gm. (30 grn.).—Fl'dextr., 1–4 cc. (15–60 M).

ASARUM CAMPHOR—see Asaron

Asbestos—For Gooch Crucible

Amianthus.—COMPOS.: Native calcium & magnesium silicate.—Fine, slender, flaxy fibers; resist fire & most solvents.—USES: In laborat. to make filters for resist. strong acids & alkalis; close combustion tubes; joint packing; acts w. H_2SO_4 as drier for gases; in milk analysis; Gooch filters; crude asbestos is used also techn. in fireproofing & heat & electric insulating; prep. incombust. textiles & lamp wicks; as diaphragms in electric cells; as support f. Pt as a catalyst; acid-proof cements; manuf. rubber, & leather substitutes, & fireproof paper, etc.

Asbestos Platinized—20% & 25% Pt

Asclepias—N.F. V

Pleurisy Root; Butterfly Weed.—Dried root of *Asclepias tuberosa*, L., *Asclepiadaceae*.—HABIT.: Ontario to Minnesota.—CONSTIT.: Asclepiadin; resins; vol. oil.—ACTION: Diaphor.; Expector.; Cathart.—USES: Pulmon. catarrh.—DOSE: 1.3–4 Gm. (20–60 grn.); aver. dose 2 Gm. (30 grn.).—Fl'dextr., aver. dose 2 cc. (30 M).

Asclepias Incarnata

White Indian Hemp.—Root of *Asclepias incarnata*, L., *Asclepiadaceae*.—HABIT.: Canada to Tennessee & Kansas.—CONSTIT.: Asclepiadin; two acrid resins; fixed & volat. oils; pectin; albumin.—ACTION: Expector.; Diuret.; Alter.—USES: Bronch., pneum., rheum., &c., & also as anthelm.—DOSES: Fl'dextr., 2–4 cc. (30–60 M); 0.6–1.3 Gm. (10–20 grn.) powd. root is given as anthelm. 3 t.p.d.

Asclepias Syriaca

Milkweed; Silkweed; Wild Cotton.—Root of *Asclepias syriaca*, L. (*A. Cornuti*, Decaisne), *Asclepiadaceae*.—HABIT.: Canada to N. Carolina & Kansas.—CONSTIT.: Asclepiadin (glucoside?); tannin; volat. oil; bitter prin.; starch.—ACTION: Alter.; Anodyne.—USES: Scrofula, asthma, amenor., dropsy, dyspnea, worms, rheumat., &c.—DOSE: Fl'dextr., 2–4 cc. (30–60 M).

Asclepin (Concentration)

Resinous extr. fr. root of *Asclepias tuberosa*, L. (Butterfly weed).—ACTION: Diaphor.; Expector.; Cath.; Tonic.—USES: By eclectics in pleurisy, pneum., catarrh, consumpt., &c.—DOSE: 0.06–0.12 Gm. (1–2 grn.) 3 or 4 t.p.d.

ASEPSIN—see *p*-Bromacetanilid

Aseptol

Sozolic, Orthophenolsulphonic, or Orthooxyphenylsulphonic, or Orthosulphocarbolic, Acid.—33% solut. orthophenolsulphonic acid, $C_6H_4(OH)SO_3H[1:2]$, & cont'g also some paraphenolsulphonic acid.—Alm. colorl. liq.; phenolic odor.—SOL.: A., G., all prop. W.—SP. GR.: 1.155 at 15° C.—ACTION: Antisep.—USES: *Intern.*, antifermentative & disinf. in gastric & intestinal catarrhs; claimed free fr. toxic effects, while more effic. than phenol.—*Extern.*, inst. of phenol & salicylic acid as antisept. in 1%–10% solut. as a vulnerary, & also, in dis. of bladder, eye, skin, & in diphth., laryng., gingivitis, &c.—*Techn.*, as test f. albumin, (Barral; Bourceau), NO_3 (Ince), & bile pigments.—DOSE: 0.6–1.3 Gm. (10–20 grn.).—CAUT.: Keep fr. light.

ASH, WHITE—see Fraxinus

ASIPHYL—see Mercury Atoxylate

l-Asparagin

Aminosuccinic acid; Althein; Asparagine; Asparamide.— $COOH.CH(NH_2).CH_2.CONH_2 + H_2O = 150.12$.—Amino-deriv. of succinic acid fr. most young plants, espec. Leguminosæ.—Colorl. cryst.—SOL.: 50 W., acids, alkalies; insol. A., E.—MELT.: 226°–230° C. w. decomp. in sealed tube; 234° C. when rapidly heated.—ACTION: Diur. (?); Cardiac Stim. (?).—USES: Formerly in nephritis; nervous heart beat, carditis, & hydropericarditis.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

ASPARAGIN-MERCURY—see Mercury Asparaginate

Asparagus—Fr. Cod.

Root of *Asparagus officinalis*, L. Liliaceæ (Asparagoideæ).—HABIT.: Europe; cultiv. everywhere.—CONSTIT.: Asparagin; fat; sugar.—ACTION: Aper.; Alter.; Diuret. Said to have a diuretic action like that of digitalis.—USES: Nervous palpitation, carditis, hydropericarditis, etc. Medicinal value at present time considered problematical.—DOSE: 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

ASPARAMIDE—see *l*-Asparagin

Asphalt

Asphaltum; Mineral Pitch; Judean Pitch; Bitumen.—Fossil, bituminous substance resulting from petroleum by evap. of lighter hydrocarbons, & partial oxid'n of the residue.—OCCUR.: West Indies (chiefly Trinidad); Venezuela; Dead Sea; Switzerland, &c.—The "Syriac" asphalt (fr. the Dead Sea) forms deep-black, shining brittle masses; conch. fracture; faint, pitch-like odor & luster.—CONSTIT.: Hydrocarbons, w. some O, S, & N.—SOL.: Oil turp., petroleum, CS_2 , C., acetone, & E.; insol. acids, alkalies, W., & A.—Streak: Brown.—SP. GR.: 1.00–1.18.—Burns w. bright flame.—HARDN.: ± 1 .—USES: *Medic.*, Antispasm.; & fumig. in rheumat.—*Techn.*, roof-covering; street pavements; calking ships; insulators; lutes; paints, lacquers & varnishes; cell-making in microscopy; etching in photog.; waterproofing; fuels.

ASPHALTUM—see Asphalt

ASPIDINOLFILICIN—see Filmaron

Aspidium—U.S.P. X; B.P.; Fr. Cod.

Male Fern; Male Shield-fern; Filix Mas (B.P.).—Rhizome & stipes of *Dryopteris* (*Aspidium*) Filix-Mas (L.) Schott, or *D. marginalis* (L.) Asa Gray, Polypodiaceæ, collected in autumn, & yielding not less than 6.5% oleores. (U.S.P.).—HABIT.: North America; Northern Asia; Europe; Northern Africa.—CONSTIT.: Filicic & flavaspidic acids; volat. oil; albaspidin; filicin; filmaron; filitanic acid; filix red; resin.—USES: Teniafuge.—DOSES: 4–12 Gm. (60–180 grn.), B.P.C.; aver. dose 4 Gm. (60 grn.), U.S.P. Us'y exhibited in form of oleoresin (*q.v.*).—Fl'dextr., 2–6 cc. (30–90 M).

Aspidosamine

$C_{22}H_{28}N_2O_2 = 352.35$.—Alkaloid fr. bark *Aspidosperma* Quebracho-blanco, Schlecht.—Yellowish-brown powd.; darkens in air.—SOL.: v. eas. A., B. C., E.; insol. W.—MELT.: Abt 100° C.

Aspidosperma—U.S.P. IX; B.P.C.

Quebracho.—Dried bark of *Aspidosperma* Quebracho-blanco, Schlecht., Apocynaceæ.—HABIT.: Argentine Republic.—CONSTIT.: Aspidospermine; aspidospermatine; aspidosamine; quebrachine; quebrachamine; hypoquebrachine; quebrachol; quebrachit; tannin.—ACTION: Febrif.; Tonic; Antispasm.—USES: *Intern.*, asthma & dyspnea, emphysema, malaria, & dysentery.—*Extern.*, in endometr. & ulcerat. cervix.—DOSES: Average, 4 Gm. (60 grn.).—Alcoh. extr., 0.12–0.3 Gm. (2–5 grn.).—Aqu. extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—Tinct. (of bark or wood) 2–4 cc. (30–60 M).

Aspidospermine Merck—Cryst.—Accord. to Fraude

$C_{22}H_{30}N_2O_2 = 354.37$ (Fraude).—Fr. *Aspidosperma* Quebracho-blanco, Schlecht.—Wh. need., or pointed prisms.—SOL.: A., B., C., E.; alm. insol. W.—MELT.: Abt 206° C.—ACTION: Respiratory Stimulant; Antispasmodic.—USES: Dyspnea, asthma, spasm, croup, &c., us'y in form of readily solub. sulphate.—DOSE: 0.001–0.002 Gm. ($1/60$ – $1/30$ grn.).

do. Merck—Amorph.

Fr. bark *Aspidosperma* Quebracho-blanco, Schlecht.—Essentially a mixt. of the amorph. quebracho bases.—Amorph., brownish-yellow pieces; bitter taste; alk. react.—SOL.: A., B., C., E.—USES: As of preceding.—DOSE: 0.06–0.1 Gm. (1–1½ grn.), sev'l t.p.d., in pills.

Aspidospermine Hydrochloride—Amorph.

Yellowish-brown powd.—SOL.: W., A.

Aspidospermine Sulphate—Cryst.

$(C_{22}H_{30}N_2O_2)_2.H_2SO_4 = 806.81$ (Fraude).—Wh. crystal. powd.—SOL.: W., A.—USES: In typhoid, when quinine fails to lower temperatur.—DOSE: 0.001–0.002 Gm. ($1/60$ – $1/30$ grn.) subcut.

do. Merck—Amorph.

Yellowish-brown powd.—SOL.: W., A.

ASPIRIN = Acid Acetylsalicylic

ASPIRIN, SOLUBLE—see Calcium Acetylsalicylate

ASPIROCHYL—see Mercury Atoxylate

ASTHMA WEED—see Lobelia

ASTHMA WEED, QUEENSLAND—see Euphorbia

Astonin

A solut. mkt'd in vials (amphiois) ea. cont'g 0.1 Gm. sod. glycerophosphate, 0.05 Gm. sod. monomethylarsenate, & 0.0005 Gm. strychnine nitrate.—ACTION: Tonic; Roborant.—USES: Exhausting diseases, tuberculosis, tabes, neurasthenia, functional impotence, under-nutrition.—DOSE: Contents of 1 vial every other day, subcut., or, one daily until 10 injections are made, then a pause of 8–10 days, then another 10 injections made as before.

ASTRAKANITE—see Bloedita

ATOPHAN = Cinchophen

ATOXYL—see Sodium Arsanilate

Atreol

Ammonium Atreolate.—An aqu. solut. cont'g NH_3 salts of a mixt. of organic acids result'g fr. act. of H_2SO_4 on certain petrol. distillates.—Black, syrupy liq.; bitter taste.—SOL.: Compl. in W.; insol. C.; misc. all proport. G., lard, wool fat, & petrolatum.—ACTION: Mild Antisept.—USES: In dermatol. & gynecol. in aqu. solut. or oint. up to 50%.

ATRINAL—see Acid Atropinesulphuric

ATROPAMINE—see Apotropine

ATROPIA, or ATROPINA—see Atropine

Atropin (Resinoid)—(Not the Alkaloid Atropine!)

Resinous extr. fr. *Atropa Belladonna*, L., & cont'g atropine.—Brown powd.; bitter taste.—SOL.: A.—ACTION: Mydr.; Sed.; Analg.—USES: To relieve pain, & in spasmodic dis.—DOSE: 0.003–0.005 Gm. ($\frac{1}{20}$ – $\frac{1}{12}$ grn.) 3 or 4 times per day.

Atropine Merck—Alkaloid—U.S.P. X

Atropina (B.P.); Atropia.— $\text{C}_{17}\text{H}_{23}\text{NO}_3 = 289.28$.—Alkaloid fr. lvs & roots *Atropa Belladonna*, L., & some o. *Solanaceae*.—Colorl., odorl., cryst.; bitter, acrid taste.—SOL.: 445 W., 2 A., abt 27 G., 25 E., & 1 C. at 25° C., U.S.P.; (500 W., eas. A. [90%], at 15.5° C., B.P.; 52 G., 15 oleic acid, Sq.).—MELT.: 114°–116° C., U.S.P.—ACTION: Antispasm.; Analg.; Mydr.; Cycloplegic; Respir. & Card. Stim.; Antisialag. & Antihidr.—USES: Intern., Antidote to pilocarpine, chloral hydrate, chloroform, HCN, fungus poison, & morphine; in angina pectoris, alcoholism, shock, colliquative sweats, pytal., gastric ulcer, asthma.—Extern., oint. (1%), or oleate is used, as analg.; as mydr., 0.5% solut.—DOSE: 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) daily; 0.0003–0.0006 Gm. ($\frac{1}{200}$ – $\frac{1}{100}$ grn.), B.P.; aver. dose, 0.0006 Gm. ($\frac{1}{100}$ grn.), U.S.P.—ANTID.: Emetics, stomach tube, pilocarpine (0.02–0.06 Gm. [$\frac{1}{2}$ –1 grn.]), muscarine nitrate, or 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) morphine, hypoderm.;

tannin, or charcoal before absorp.—INCOMP.: Chem., alkalies, tannin, salts of Ag or Au; vegetable infusions or decoctions; borax; bromides, benzoates, cyanides, & iodides; oxalic & picric acids; physiol., morphine, pilocarpine, muscarine, aconitine, & physostigmine.—CAUT.: Keep fr. air & light, in well-stop. amber vials.—Very poisonous! Handle w. care.

Atropine Arsenate

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{H}_3\text{AsO}_4 = 431.26$.—Wh., cryst. powd.; cont. 67% atropine & 33% H_3AsO_4 .—SOL.: W., A.—CAUT.: Very poisonous!

Atropine Borated

Mixt. of abt 33.3% atropine & abt 66.7% boric acid.—Wh., cryst.-like lumps.—SOL.: W., A.—USES: Ophthalmic practice.

Atropine Hydrobromide Merck

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HBr} = 370.21$.—Wh. cryst. powd.—SOL.: W., A.—MELT.: 161°–162° C.—ACTION: Mydriatic.—USES, &c.: As of atropine.

Atropine Hydrochloride Merck

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HCl} = 325.75$.—Wh. cryst. powd.—SOL.: W., A.—MELT.: 165°–166° C.—ACTION: Mydr., &c.—USES, ANTID., INCOMP., etc.: As of atropine.—DOSE: 0.0006–0.001 Gm. ($\frac{1}{100}$ – $\frac{1}{60}$ grn.).

Atropine Methylbromide Merck

Methylatropine Bromide.— $\text{C}_{16}\text{H}_{20}\text{O}_3 \cdot \text{N}(\text{CH}_3)_2 \cdot \text{Br} = 384.23$.—20.84% Br.—Wh. cryst.—SOL.: Eas. W.; sltly absol. A. & C.; alm. insol. E.—MELT.: 222°–223° C.—ACTION: Efficient Mydriatic; Antihidrotic.—USES: Ophthalmology inst. of atropine sulphate (much less toxic than this), & to check excess. sweat. in phth. Also in migraine, cephalalgia, neuralgia, cutan. dis., tuberc., bronchial asthma, laryng., keratitis, cystitis, insomnia, neurasth., hysteria, tussis & pertussis, epilepsy, myocarditis, diab. mell., dyspep., rheumat., gastric affect., toothache, cardiac affect., eclampsia.—DOSE: Intern., 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.); 0.004 Gm. ($\frac{1}{15}$ grn.) p.d.; subcut., 0.0001–0.0003 Gm. ($\frac{1}{600}$ – $\frac{1}{200}$ grn.) in abdominal pains, acute croupous pneumonia, & biliary colic; in infantile eclampsia 0.0001–0.0002 Gm. ($\frac{1}{600}$ – $\frac{1}{300}$ grn.).—Extern., in ophthalm. as mydriatic in 1%–2% solut., & in iritis w. secondary glaucoma.

ATROPINE METHYLNITRATE—see Eumydrin

Atropine Nitrate Merck—Cryst.

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HNO}_3 = 352.29$.—Wh. cryst. powd.—SOL.: A., W.—ACTION, USES, DOSES, &c.: As of atropine.

Atropine Nitrite

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HNO}_2 = 336.29$.—Wh. to sltly yellowish cryst. powd.—SOL.: Eas. W., A.—USES: Comb'd w. cocaine nitrite in inhal. in asthma.—DOSE: 0.0003 Gm. ($\frac{1}{200}$ grn.) for 3–5 inspirations.

Atropine Oleate—N.F. IV

2% solut. atropine in equal parts oleic acid & olive oil.—SOL.: E., B., C., & oils.—ACTION:

Mydr.; Sed.; Anod.—USES: Inunction in whoop-cough, shock, & spasm where medic. cannot be properly given by mouth.

Atropine Salicylate Merck

$C_{17}H_{23}NO_3 \cdot C_7H_6O_3 = 427.36$.—Wh. cryst. powd.; cont. 67.7% atropine.—SOL.: W., A.—USES, &c.: As of atropine sulphate; adapted f. use w. salicylates.

Atropine Santoninate

$C_{17}H_{23}NO_3 \cdot C_{15}H_{20}O_4 = 553.51$.—Wh. powd.—SOL.: W.—MELT.: 113° – 115° C.—USES: Ophthal. practice in preference to o. atropine salts as it keeps better.—CAUT.: Keep in dark bot.

Atropine Sulphate Merck—U.S.P. X—Gran. or Powd.

$(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4 + H_2O = 694.65$.—Colorl., odorl., granules or powd.; free fr. acid or alkali; alm. inactive optically.—SOL.: 0.4 W., 5 A., 420 C., 3000 E., 2.5 G., at 25° C., & 2.5 boil. A., U.S.P.—MELT.: Not below 188° C. U.S.P.—ACTION: Antispasm.; Mydriatic; Antisialagogue; Antihidrotic. Most used salt of atropine.—USES: *Intern.*, epilepsy, chorea, whoop-cough, bronch. asthma, gastric ulcer, salivation, tinnitus, nocturnal enuresis, exhausting sweats, diab. mell.; as hemostat. in placenta previa & post-partum hemorrh., epistaxis, hemophilia, hemopt., & renal hemorrh.—*Subcut.*, in colics, neuralg., gastric affections, volvulus, sea sickness; in combin. w. strychnine nitrate in alcoholism; as antid. to poison'g by digitalis, morphine, HCN, pilocarpine & fungi.—*Extern.*, as mydriatic in collyria; as suppository in spastic constip.—DOSES: *Intern.*, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.); 0.0003–0.0006 Gm. ($\frac{1}{200}$ – $\frac{1}{100}$ grn.), B.P.; aver. dose, 0.0005 Gm. ($\frac{1}{120}$ grn.), U.S.P. In enuresis, 20 drops p. day of a 0.1% solut. f. childr. 2–5 yrs old, & up to 30 drops f. older children.—MAX. D.: Variously stated as 0.001 Gm., 0.002 Gm., 0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ – $\frac{1}{20}$ grn.) single, intern., & 0.0005 Gm. ($\frac{1}{120}$ grn.) subcut.—As ANTID. to poisoning, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) subcut.—APPLIC.: In 0.5% solut. as mydriatic; in seasickness, 2–3 drops 1:125 solut. instilled into conjunctival sac.—VETER. MED.: Chiefly *extern.* f. examin'g the eye in iritis & in operations on the eye, in 1%–2% solut.; contraindicated in corneal ulcers.—*Intern.*, in poisoning, heat stroke, heart weakness, & threatened respiratory paralysis; as antidote to arecoline, chloroform, morphine, & other poisons (as above); in abnormal salivation & sweating.—DOSES: *Subcut.*, horses & cattle, 0.02–0.1 Gm. ($\frac{1}{3}$ – $1\frac{1}{2}$ grn.); sheep & pigs, 0.01–0.03 Gm. ($\frac{1}{6}$ – $\frac{1}{2}$ grn.); dogs, 0.005–0.05 Gm. ($\frac{1}{12}$ – $\frac{3}{4}$ grn.); cats & fowl, 0.002–0.005 Gm. ($\frac{1}{30}$ – $\frac{1}{12}$ grn.).—ANTID., INCOMP., ETC.: As of atropine.

do. Merck—Natural—Cryst.

Consists alm. exclusively of hyoscyamine sulphate.—Wh. cryst.—SOL.: W., A.—MELT.: 204° – 206° C.

Atropine Valerate

$(C_{17}H_{23}NO_3 \cdot C_5H_{10}O_2)_2 + H_2O = 800.78$.—Wh. cryst.; slt odor of valeric acid; cont. 72.3%

atropine.—SOL.: E.; eas. W., A.—USES, &c.: As of atropine; adapted f. use w. valerates in nervous diseases.—MAX. D.: 0.001 Gm. ($\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) daily.

ATROPYLTROPEINE—see Apotatropine

Atroscine

Inactive Scopolamine.— $C_{17}H_{21}NO_4 + H_2O = 321.28$.—Colorl., effloresc. cryst.—SOL.: A., C., E., oils; v. sltly W.—MELT.: 56° – 58° C.—ACTION: Sedat.; Hypnot.—USES: *Intern.*, like scopolamine (*q.v.*).—*Extern.*, as mydriatic in 0.2%–0.5% solut. in peanut, almond, or olive oil.

Atroscine Hydrobromide

$C_{17}H_{21}NO_4 \cdot HBr + 3H_2O = 438.24$.—Colorl., effloresc. cryst.—SOL.: W.; diffic. A.; insol. E.—MELT.: 182° – 185° C. (when anhydrous), after first softening.—USES: *Intern.*, As of scopolamine hydrobromide.—*Extern.*, mydriat., in 1:100 aq. solut.

ATTAR OF ROSE—see Oil Rose

AUBÉPINE—see Aldehyde Anisic

AUER METAL—see Pyrophorous Alloy

AURAMINE, MEDICINAL—see Pyoktanin Yellow

AURAMINE O—see Auramine Yellow

Auramine Yellow

Iminotetramethyldiaminodiphenylmethane Hydrochloride; Auramine O.— $C_{17}H_{22}N_3Cl + H_2O = 321.77$.—Sulphur-yellow powd.—SOL.: A., W., E.—USES: *Techn.*, dyeing cotton, wool, silk, leather, & paper.

AUREOLINE—see Primuline, Yellow

AURIN—see Acid Rosolic

Aurin Red

Mixt. of aurin (or pararosolic-acid-trioxytriphenylcarbhydride), methylaurin, & chiefly corallin-phthalin. —Yellowish-brown lumps; greenish fracture.—SOL.: A.; insol. W.—USES: Coloring spirit varnishes & lacquers; manuf. tapestries & colored paper; color'g photographs; dye f. wool & silk.—See also Rosolic Acid.

AURIPIGMENT—see Arsenic Sulphide, Yellow

AUROCIDIN = Gold & Sodium Thiosulphate

AUSTRALENE—see Pinene, Dextrograte

AUSTRALIAN FEVER BARK—see Alstonia

AUSTRALIAN FEVER TREE—see Eucalyptus

AUSTRIAN CINNABAR—see Lead Chromate, Red, Basic

AUTUMN CROCUS—see Colchicum Corm

AVA-AVA—see Kava

Avenin Merck—Crude

"Legumin."—Albuminoid fr. Avena sativa., L. (Oats); prob'y ident. w. gluten casein.—Yellowish, floury, dust-like, alm. odorl. powd.—SOL.: v. dil. alkalies; insol. W., but swells in boil. W. The alk. solut. is yellowish, & is decomp. on prolonged boil. w. evol. of NH_3 & H_2S . Also sol. in tartaric & acetic acids, the solut's being turbid.

AXUNGIA PORCI—see Lard

Azadirach—B.P.C.

Nim, Neem, or Margosa, Bark.—Bark of dried stem of *Melia Azadirachta*, L., *Meliaceae*.—HABIT.: China to India; Ceylon; Malay Archipelago.—CONSTIT.: Bitter resin; margosine (a cryst. bitter alkaloid); margosic acid; tannin.—ACTION: Simple Bitter.—USES: As of gentian or quassia.—DOSE: Cold Infus. (1:100), 2–4 cc. (30–60 M).—Tinct. (1:10), 2–4 cc. (30–60 M).

AZALEINE—see Fuchsin, Dye

AZAMIN 4 B—see Benzopurpurine 4B

Azamine

A special preparation of Pyridium (*q.v.*) f. dental use. Powerful, yet perfectly safe chemotherapeutic bactericide w. specific action on cocci, B. Vincenti, & B. Ducey. Penetrates deeply & is rap. absorbed, while entirely free fr. irritant or caustic action. Used in alveolar pyorrhea, gingivitis, trench mouth, etc.—Supplied as Ampuls, ea. cont'g 1 cc. (15 M); as Powd. (in 15 grn. vials); & as Mouth Wash (in 4 oz. bottles).—APPL.: In pyorrh., after teeth are scaled, pus pockets are syringed to remove pus & detritus, then 2–4 drops fr. an ampul are injected into the pocket (*not* the gum) w. a *blunt* needle or abscess syringe; the gums are then massaged. Thereafter the mouth is to be rinsed 3–4 times daily w. the Mouth Wash (1 teaspoonf. to $\frac{1}{2}$ glass water); this solut. may also be used as a prophylactic as it tends to keep the mouth in a healthy condition.

AZIN BLUE—see Induline, Alcohol-soluble

AZO ACID RUBIN 2 B—see Amaranth

p-AZOANILINE—see *p*-Diaminoazobenzene

Azobenzene

Azobenzol; Azobenzide; Benzeneazobenzene.— $C_6H_5.N_2.C_6H_5 = 182.16$.—Fr. nitrobenzene by NaOH & Zn dust.—Orange-red leaflets.—SOL.: A., E.; insol. W.—MELT.: 68°C.—BOIL.: 293°C.

do. —Commercial

USES: Manuf. benzidine, & induline dyes.

AZOBENZINE, or AZOBENZOL—see Azobenzene

Azodermin

Acetylaminoozotoluene. — $CH_3.C_6H_4.N:N.C_6H_3.CH_3.NH(CO.CH_3) = 267.24$. — Brick-red powd.—SOL.: A., C., E., fats, oils.—MELT.:

185°–186° C.—USES: As cell proliferant in chron. ulcers, neoplasms, etc., in 8%–10% oint., like Scarlet Red, Medicinal.

Azolitmin Merck—Reagent

Partic. pure color'g matter fr. litmus.—Dark-violet scales.—SOL.: Diffic. W.; insol. A., dil. acids; v. eas. in dil. alkalies.—INDICATOR SOLUT.: Diss. 1 Gm. in 80 cc. hot W., then add 20 cc. A.—TEST F. SENSITIVENESS: 0.1 cc. solut. + 50 cc. W. (CO_2 -free) + 0.05 cc. 0.1*N* HCl—bluish-red changed to red; add 0.05 cc. 0.1*N* NaOH—color changed to bluish-violet.—USES: Indicator, replacing litmus (alkalies = blue; acids = red); espec. in volumetr. determ'n of alkalies & alkaline earths (in absence of carbonates), most mineral & some organic acids (not citric or tartaric), & some alkaloids; prepar' litmus media f. bacteriological purposes.

Azolitmin Paper

Wh. paper impregnated w. a solut. made by diss. 1 Gm. azolitmin & 0.6 Gm. sod. carbonate in 1 liter W. & then neutralizing w. dil. H_2SO_4 ; the paper is then dried.—USES: Indicator (alkalies = blue; acids = red).

Azur II

Azur II "Giemsa"; Azur Blue II; Methylene Azur II.—Mixt. of eq. quant. of HCl salts of methylene blue & methylene azur (methylene blue chloride = tetramethylthionine hydrochloride, $(CH_3)_2N.(C_6H_3.S.C_6H_3):N.N.(CH_3)_2.Cl$, & methylene azur chloride = methylene blue chloride sulfone, $(CH_3)_2N.(C_6H_3.SO_2.C_6H_3):N.N.(CH_3)_2.Cl$.—Deep-green powd.—SOL.: W. w. deep-blue color; less sol. in A., diffic. C.; insol. E.—USES: As methylene azurmethylene blue-eosine stain accord. to Giemsa.

AZUR II "GIEMSA" }

AZUR II METHYLENE } see Azur II

AZUR BLUE II }

Azur II-Eosine

Azur II-Eosine "Giemsa."—Mixt. of methylene blue-eosine (methylene blue eosinate) & methylene azur-eosine (methylene blue sulfone eosinate).—Deep green powd.—SOL.: Diffic. W.; more eas. A., methyl A., & G.—USES: As of azur II.

AZURE BLUE—see Copper Carbonate, Blue

B

Babes' Stains

(a) For bacteria: A sat. solut. safranin in 50% alcohol.; (b) for nuclei: A sat. solut. safranin in W. cont'g 2% aniline.

BABIRUNG—see Embelia

BABUL BARK—see Acacia Bark

BACHELOR'S BUTTONS—see Nux Vomica

Bael—B.P.

Bela; Bengal Quince; Indian Quince; Bel; Indian Bael; Aegle.—Fresh half-ripe fruit of

Aegle Marmelos, Correa, Rutaceae.—HABIT: East India; Hindustan.—CONSTIT.: Tannin; mucilage; sugar; volat. oil.—USES: Astring. in diarrh. & dysent.—DOSES: 1–2 Gm. (15–30 grn.).—Alcoh. extr., 2–4 Gm. (30–60 grn.).—Fl'dextr., 4–8 cc. (1–2 fl. dr.).

BAEL, INDIAN—see Bael

BAHAMA WHITE WOOD—see Canella

BAKING SODA—see Sodium Bicarbonate

BALM—see Melissa

BALM GILEAD—see Balsam Canada; Balsam Mecca

BALM MINT—see Crispmint

BALMONY, EAST INDIAN—see Chirata

BALSAM, BLACK—see Balsam Peru

Balsam Canada—Natural

Canada Turpentine (B.P.); Balsam of Fir; Balm of Gilead (improperly).—Liq. oleoresin fr. *Abies balsamea*, (L.) Miller (Balm-of-Gilead Fir), *Coniferae*.—HABIT.: Canada, & Northern U.S. to Va., west to Minnesota.—Yellowish to greenish, transp., visc., sltly fluoresc. liq.; agre., arom. pine-like odor; bitter taste; on expos. to air grad. solidif. to a solid, non-cryst. mass.—SOL.: All proport. in B., C., xylene, ethyl acetate, & oil cedar; alm. compl. to entirely in E., oil turpent.; to great extent (abt 90%) in 90% A. & in petrol. E.; insol. W., but yields to latter a bitter substce.—CONSTIT.: Pinene; bornyl acetate; resin (70%–80%); volat. oil (16%–24%).—SP. GR.: 0.987–0.994.—REFRACT. INDEX at 20° C.: 1.52–1.54.—ACID NO.: 84–87.—SAPON. NO.: 89.4–95.7 (2 Gm. + xylene; 1 hr).—[α]_D = + 1° – + 4°.—USES: *Intern.*, in dis. of bronchial & urethral muc. membr.—*Extern.*, in plasters; in domestic practice on abrasions & slt wounds, & in flex. collod.—*Micros.*, f. mounting.—*Techn.*, as cement f. lenses; manuf. fine lacquers.—DOSE: 0.3–2 Gm. (5–30 grn.) in pills.

BALSAM CAPIVI, or COPAIBA—see Copaiba

BALSAM FIR—see Balsam Canada

BALSAM FRIAR'S—see Balsam Traumatic

BALSAM GILEAD—see Balsam Mecca

Balsam Gurjun

Wood-Oil; "East Indian Copaiba."—Oleo-resin fr. var. spec. of *Dipterocarpus*, *Dipterocarpeae*.—HABIT.: Eastern India & Burmah.—By transmitted light, light-brown, clear, limpid liq. w. greenish floresc., & somewhat bitter, but not v. acrid taste.—SOL.: Compl. in B., C.; not compl. in A., E., CS₂, & petrol. E.—SP. GR.: 0.955–0.965 at 15° C.—CONSTIT.: Volat. oil (abt 70%–80%, & boil. at abt 255° C.); gurgunic acid; resin; bitter substce sol. in W.—ACID NO.: 5–15.—SAPON. NO.: 10–20 (2 Gm. + 20 Gm. xylene; 1 hr).—ACTION: Antisep.; Diuret.; Lax.—USES: *Intern.*, dis. of muc. membranes, lepra, syph., & gonorrh.—*Extern.*, in oint. & plaster in skin dis., rheum., lepra, & syph.—*Techn.*, like copaiba; adapted f. varnishes & lacquers, partic. f. articles to be exposed to a temp. of 80° C. or so.—DOSE: 0.6–4 Gm. (10–60 grn.) 2–4 t.p.d.—APPL.: As "shake" mixt. w. lime-water (1:3), or oil.

BALSAM, INDIAN—see Balsam Peru

Balsam Mecca

Balm, or Balsam, of Gilead; Balsán-Ka-tél; Duhnulbalsam.—Balsam obt'd fr. twigs of *Balsamodendron Gileadense* Kunth (*Commiphora opobalsamum*).—Light colored, mobile to viscid, turbid, brownish-red, liq.; arom. odor.—SOL.: A., B., C., acetone, acetic acid, CS₂, oil turpent. & E.—USES: Perfumery; medicinally obsolete.

Balsam Peru Merck—True

DESCRIPT. & USES: As of the following.

do. —U.S.P. X; B.P.; Fr. Cod.

Peruvian Balsam; Indian Balsam; China Oil; Black Balsam.—Fr. *Toluifera Pereira*, (Royle) Bail. (*Myroxylon Pereira Klotzsch*), *Leguminosae*.—HABIT.: Central America (San Salvador) in forests near Pacific coast.—Dark-brown, viscid liq.; pleas., arom. odor; warm, bitter taste & persistent after-taste.—SOL.: A., C., & glac. acetic acid, w. not more than slt. opalesc.; partly in E. & petrol. E.; alm. insol. W.; insol. olive oil. U.S.P.; 1 A. (90%), B.P.—SP. GR.: 1.130–1.160, at 25° C., U.S.P.; 1.137–1.150 at 15.3° C., B.P.; 1.135–1.150, Fr. Cod.—CONSTIT.: Cinnamein (not less than 50% & not over 60%, U.S.P.; 57%–66%, B.P.C.); benzoic & cinnamic acids as benzyl esters; resin (abt 28%); styracine; vanillin; perurresinotannol esters of cinnamic acid.—ACTION: Expectant.; Stim.; Stomachic; Antisep.—USES: *Intern.*, chron. catarrh of the respiratory, digestive, & urogenital organs; gonorr., leucorr., palsy, affect. of mucous membranes; asthma, colic, impotence, tabes dorsalis; rheumat., amenorr., syphil., asthma, phth., &c.—*Extern.*, either pure or in 1:1–5 solut. in A., or w. oil or G., or 1:5–10 oint. (lanum) in tubercul. affect. of bone, skin, &c.; chron. indol. ulcers, wounds, contusions, eczema, burns, scabies, sore nipples, chilbl., leucoplakia, diphther., laryngeal tuberc., ozena, corneal serpent ulcer, keratitis; lice &c.; also as enema & suppository.—*Subcut.*, *intraven.*, etc., in tubercul. dis.—By inhal'n in chron. laryngitis, tuberculosis.—*Techn.*, perfumery & chocolate manuf.; also f. masking odor of iodoform.—DOSE: 0.2–2 cc. (3–30 M) 4 to 8 t.p.d. in gelat. caps.; aver. dose 1 cc. (15 M).—INCOMP.: ferric salts; iodoform; H₂O₂.

BALSAM, SULPHUR—see Oil Linseed, Sulphurated

BALSAM TOLU—see Tolu

Balsam Traumatic—N.F. III

Friar's Balsam; Turlington's Balsam.—Fr. 100 benzoin, 35 storax, 35 balsam Tolu, 16 balsam Peru, 8 aloe, 8 myrrh, 4 angelica, & A. to make 1000.—ACTION: Antisep.—USES: *Intern.*, antisep. in bowel & stomach affect.—*Extern.*, inflam., wounds, bruises, & sores.—DOSE: 2–4 cc. (30–60 M).

BALSAM TREE—see Mastic

BALSÁN-KA-TÉL—see Balsam Mecca

BANANA OIL—see *iso*-Amyl Acetate

BANEWORT—see Belladonna Leaves

Bang's Solutions—Test f. Glucose (Dextrose)

(a) *Copper Stock Solut.*: Diss. 160 Gm. KHCO₃ in 700 cc. W. & add 4.4 Gm. cryst. CuSO₄, 66 Gm. KCl, & 100 Gm. K₂CO₃; when diss., add W. to 1000 cc.—(b) *Acid KCl Solut.*: Add 1.5 cc. 25% HCl to 1360 cc. sat. solut. KCl, then add W. to make 2000 cc.—(c) *I Solut.*: To 1–2 cc. 2% solut. KIO₃ + 2 Gm. KI add 5 cc. 0.1*N* HCl + W. to make 100 cc.—(d) Diss. 1 Gm. soluble starch in 10 cc. boil. W. & add sat. solut. KCl to make 100 cc.—USES: Quant. determ. glucose (dextrose) in blood, etc.

Banisterine

Chem., physically, & pharmacologically ident. w. Harmine (see this).

BANNAL—see Scoparius

Baptisia—N.F. V

Wild Indigo; Indigo Weed; False Indigo; Yellow Indigo.—Root of *Baptisia tinctoria*, Robert Brown, Papilionaceæ.—HABIT.: North America.—CONSTIT.: Baptin (a purgative glucoside); baptisin (bitter glucoside); baptitoxine (ident. w. cyttisin; baptisine ?), an alkaloid.—ACTION: Small doses mildly Laxative; large doses Emeto-Cathartic; Antisep.; Astring.—USES: *Intern.*, typhoid & scarlet fev., & diphth.—*Extern.*, in diphth. & scarlet, fev., sore throat, indol. ulcers, gangren. sores, &c.—DOSES: Aver., 1 Gm. (15 grn.).—Fl'dextr., 0.3–2 cc. (5–30 M).—Tr., 0.6–4 cc. (10–60 M).

Baptisin

Fr. root of *Baptisia tinctoria*, R. Brown. (Wild Indigo plant).—Brownish mass.—ACTION: Emet. in large doses; Laxat., Tonic, & Astring. in small doses.—USES: *Intern.*, scarlet fever, typhoid, chron. dysent.—*Extern.*, gangrenous & erysipelatous ulcers.—DOSE: As laxative, 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.); often causes colic.

BAPTITOXINE—see Cytisine

BARABANG—see Embelia

Barberio's Solution—Test for Indican

Aqu. 1:2000 solut. sod. nitrite.—To 5 cc. urine add 3 drops solution & 5 cc. conc. HCl—a blue color develops if indican present (color can be shaken out w. CHCl_3).

Barberry Bark—B.P.C.

Berberis; Jaundice Berry; Wood-sour; Sowberry; Pepperidge Bush; Sour-spine; Barberry.—Bark of root of *Berberis vulgaris*, L., Berberidaceæ.—HABIT.: Europe & Western Asia; also U.S. (New England States, Pennsylvania & Virginia).—CONSTIT.: Berberine; berbamine; oxyacanthine; tannin; wax; fat; resin; gum; starch.—ACTION: Bitter Tonic; Laxat.; Febrif.; Astring.—USES: *Medicin.*, debil. & jaundice, & intermit. fevers.—*Techn.*, dyeing yellow; source of berberine.—DOSES: Decoct. or infus. (1:20), 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.) as tonic & febrif.—Tinct. (1:10), 2–4 cc. (30–60 M).

BARBERRY, HOLLY-LEAVED—see Berberis

BARBERRY, INDIAN—see Berberis Aristata

Barbet-Jandrier's Solution—Test for Aldehydes in Alcohol

Dissolve 0.05 Gm. phenol, or hydroquinone, or phloroglucin, or betanaphthol, in 2 cc. alcohol and 1 cc. sulphuric acid. The solutions afford violet to reddish-violet colors with various aldehydes. Hydroquinone alone, 0.1 Gm. with 1 cc. sulphuric acid, affords orange-yellow colors with aldehydes present in alcohol.

Barbital Merck—U.S.P. X

Veronal; Barbitone; Diethylmalonylurea; Diethylbarbituric Acid; Malourea (B.P.C.).— $(\text{C}_2\text{H}_5)_2\text{C}:(\text{CONH})_2:\text{CO} = 184.15$.—Wh., cryst., sublimable powd.; faintly bitter taste.—

SOL.: Abt 130 W., 14 A., 75 C., 35 E., at 25° C., 13 boil. W., & also in acetone & ethyl acetate, U.S.P.—MELT.: 187°–190° C.—ACTION: Reliable Hypnotic.—USES: Simple agrypnia, & insomnia accompanying hysteria, extreme nervousness, neurasthenia, hypochondria, melancholia, conditions of anxiety, cough, carcinoma, dyspnea, pains, pruritus, operations, seasickness, vomiting of pregnancy, epilepsy, chorea, imbecility, idiocy, paresis w. excitement, & promoting both scopolamine & general narcosis; also in cure of morphinism & cocaineism, & mental disturbances; paranoia, alcoholism, delirium tremens, nicotism, lessening tremors in multiple sclerosis, paralysis agitans, hemiplegia, delirium; in pneumon., senile pruritus, neuralg., whoop-cough; cerebral tumor; gastrointestinal derangements associated w. neurasth., digestive disturb. & tetanus in childr.; also w. chloroform $\frac{1}{2}$ –2 hrs before operations.—*Contraindicated* in renal dis.; extensive heart lesions, espec. myocarditis & aortic regurgit.; insomn. due to pain.—DOSE: 0.3–1 Gm. (5–15 grn.), best taken diss. in hot tea or W.; aver. dose 0.5 Gm. (8 grn.); in whoop-cough, 0.03 Gm. ($\frac{1}{2}$ grn.) f. young, & 0.06–0.1 Gm. (1–1 $\frac{1}{2}$ grn.) to older, childr., 3–4 t.p.d.; in digest. disturb. & tetanus in childr. 0.04–0.07 Gm. ($\frac{2}{3}$ –1 $\frac{1}{2}$ grn.) 1–2 t.p.d.; when used w. chloroform before operations, 1 Gm. (15 grn.).—INCOMPAT.: Calomel, if given at nearly the same time.—ANTID.: Stimulation of vasomotor center; camphor; gastric lavage w. tannin solut.; oxygen; stimulants generally.

do. Merck—Tablets, 5 Grains Each

Barbital-Sodium Merck—U.S.P. X

Veronal-Sodium; (Mono) Sodium Diethylbarbiturate; Soluble Barbital, or Veronal.— $(\text{C}_2\text{H}_5)_2\text{C}:(\text{CONNa.CONH}): \text{CO} = 206.14$.—Wh., odorl., bitter, cryst. powd.—SOL.: 5 W. at 25° C., 2.5 boil. W. insol. E.; sltly A.—USES & DOSES: As of barbital; partic. useful where exhibition in solut. is desirable. Well adapted also f. rectal admin., & subcut. inj. (0.5 Gm. [8 grn.] diss. in 5 cc. [75 M] W.) in threatening delirium tremens, in epilepsy, etc.

do. Merck—Tablets 5 Grains Each

BARBITAL, SOLUBLE—see Barbital-Sodium

BARBITONE—see Barbital

BARDANA—see Lappa

Barff's Boroglycerin

Satur. (by heat) solut. boric acid in glycerin.—USES: Preserv. animal & vegetable specimens.

Barfoed's Solution—Test for Glucose (Dextrose)

Neutral copper acetate 13.3 Gm. diss. in 200 cc. 1% acetic acid.—Reduced by glucose w. heat.

Barite—Mineral

Barytes; Heavy Spar.—OCCUR.: Great Britain; Europe; U.S.; Canada; Nova Scotia.—COMPOS.: BaSO_4 .—CRYST. SYST.: Rhomb.—LUSTER: Vitr. COLOR: Wh., yellow, gray, blue, brown, red.—STREAK: Wh.—CLEAV.: Perfect basal & fair pinacoidal.—Brittle; transp. to opaque.—

HARDN.: 2.5–3.5.—SP. GR.: 4.3–4.6; cryst. 4.489.—USES: Source of barium compds.

Barium

Ba = 137.37; disc. by Davy in 1808, electrolytically.—Sltly yellowish white, sltly lustrous lumps; somewh. malleable; v. eas. oxidizable; must be kept under petroleum or other oxygen-free liquid to exclude air.—SOL.: W. w. copious evol. of H; also in A. w. evol. of H.—SP. GR.: 3.78.—MELT.: 850° C.—BOIL.: 950° C.

Barium Acetate Merck—C.P.—Cryst.

Ba(C₂H₃O₂)₂ + H₂O = 273.45.—Wh. cryst. powd.—SOL.: 2 W.; sltly A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Nitrate (N ₂ O ₅).....	0.003%
Alkali & Calcium.....	0.10%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: Pptng sulphates & chromates; deterring Ca & alkalis.

do. —Cryst.

DESCRIPTION, & SOL., As of preced'g.—USES: Manuf. aluminum-acetate mordant for printing fabrics.—ANTID.: For all Ba salts: Sod. or magnesium sulph.; emetics; stomach siphon.

Barium Amylsulphate

Ba(C₅H₁₁SO₄)₂ + 2H₂O = 507.75. — Colorl. cryst.; fatty feel.—SOL.: W.; more diffic. A.

Barium Benzenesulphonate

Barium Benzolsulphonate.—Ba(C₆H₅.SO₃)₂ + H₂O = 469.65.—Wh., nacreous leaflets.—SOL.: Eas. W.; sltly A.—USES: Organic synthesis.

Barium Benzoate

Ba(C₇H₅O₂)₂ + 2H₂O = 415.55.—Colorl., nacreous leaflets.—SOL.: W.; sltly A.—USES: Heart stim. inst. of digitalis, in varicose veins & aneurisms.

BARIUM BENZOLSULPHONATE—see Barium Benzenesulphonate

BARIUM BICHROMATE—see Barium Dichromate

Barium Binoxalate

Acid Barium Oxalate.—Ba(HC₂O₄)₂ + 2H₂O = 351.44.—Wh. cryst.—SOL.: v. sltly W.

Barium Borotungstate

Barium Borowolframate.—Ba₉(B[W₂O₇]₆)₂ = 7018.13.—Large wh. cryst.; rapidly effloresces in air, & then present a dull appear.—SOL.: v. eas. W.—USES: Prep. other borotungstates.

BARIUM BOROWOLFRAMATE—see Barium Borotungstate

Barium Bromate

Ba(BrO₃)₂ + H₂O = 411.23.—Wh. cryst.—SOL.: W.

Barium Bromide

BaBr₂ + 2H₂O = 333.24.—Colorl. cryst.; loses 1 mol. W. at 75° C., & 2 mols W. at 120° C.—SOL.: A.; v. eas. W.—ACTION: Resembles that of barium iodide.

Barium Carbonate Merck—Reagent

BaCO₃ = 197.38.—Wh. powd.—SOL.: Sltly (1:1000) in carbonated W., & w. efferv. in HCl, HNO₃, or HC₂H₃O₂; alm. insol. in CO₂-free W.

MAXIMUM OF IMPURITIES

Acid-Insol. Substcs.....	0.000%
Chloride (Cl).....	0.001%
Nitrate (N ₂ O ₅).....	0.002%
Sulphide (S).....	0.000%
Hydroxides (as Ba(OH) ₂).....	0.000%
Alkalies & Foreign Earths.....	0.15%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: Separat'g Fe & Al fr. Mn, Zn, Mg, & Ca; remov'g H₂SO₄ fr. soluts; detect'g free HCl in gastric juice.

Barium Carbonate Merck—C.P.—Precip.

BaCO₃ = 197.38.—Wh. powd.—SOL.: HCl, HNO₃, or acetic acid, w. effervesc.; alm. insol. pure W.

MAXIMUM OF IMPURITIES

Acid-Insol. Substcs.....	0.000%
Chloride (Cl).....	0.003%
Nitrate (N ₂ O ₅).....	0.005%
Sulphide (S).....	0.000%
Hydroxide (as Ba(OH) ₂).....	0.090%
Alkalies & Foreign Metals.....	0.50%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Pure—Precip.

DESCRIPTION & SOL.: As of preced'g.—USES: Prepar. o. Ba salts.—CAUT.: Poison!

do. —Techn.—Precip.

Wh. to sltly yellow powd.; cont. some BaS.—SOL.: w. turb. in dil. HCl, & dil. HNO₃; alm. insol. W.—USES: Rat poison, paper manuf., ceramics, paints, enamels, marble substitutes, rubber, purif'g sugar; in manuf. Ba salts.

Barium Chlorate Merck—C.P.—Cryst.

Ba(ClO₃)₂ + H₂O = 322.31.—Colorl. cryst.—SOL.: Abt 3 W.; sltly A.; somewhat in acetone.—Loses W. of cryst. at 120° C.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N ₂ O ₅).....	0.002%
Alkali Salts.....	0.50%
Heavy Metals.....	0.000%

USES: Chiefly as an oxidizer.

do. —Cryst. or Powd.

DESCRIPTION, & SOL.: As of preced'g.—USES: Pyrotechn. (green fire); matches; assistant in dyeing; manuf. explosives.

Barium Chloride Merck—Reagent—Cryst.

$\text{BaCl}_2 + 2\text{H}_2\text{O} = 244.32$.—Colorl. cryst.; bitter, salty taste.—*SOL.*: Abt 2.5 W.; insol. A.; HCl decreases solub. in W.

MAXIMUM OF IMPURITIES

Reaction (for soil testing)	Neutral
Chlorate & Nitrate (as N_2O_5) . .	0.004%
Alkali Salts	0.100%
Heavy Metals	0.000%
Strontium & Calcium Chlorides	0.100%

USES: Detect'g & determ'g SO_4 ; estimat'g lactic acid in urine; detect'g fluorides & chromates; standardiz'g soap soluts. f. W.-anal.

Barium Chloride Merck—C.P.—Cryst.

$\text{BaCl}_2 + 2\text{H}_2\text{O} = 244.32$.—Colorl. cryst.; bitter, salty taste.—*SOL.*: abt 2.5 W.; insol. A.; HCl decreases solub. in W.

MAXIMUM OF IMPURITIES

Reaction (for soil testing)	Neutral
Alkali Salts	0.100%
Chlorate & Nitrate (as N_2O_5) . .	0.006%
Strontium & Calcium Chlorides	0.200%
Heavy Metals	0.000%

USES: As of the Reagent, above.

do. —Pure—Cryst.

DESCRIPTION, & *SOL.*: As of preced'g.—**ACTION**: Cardiac Tonic; Alternative.—**USES**: *Intern.*, scrofula, syph., multiple sclerosis of the cord, white swelling & other articular affections, insufficient gastrointestinal secretions, mild enteric fever, ague, satyriasis, pollutions, Basedow's dis., myodegeneration of the cord, as a diuretic. in pleural effusions & early valvular dis., in mitral insufficiency & cardiac dis. where digitalis fails.—*Extern.*, as bandage on ulcers, as collyrium (in 1% solut.), in corneal opacities (in 10% oint.), in strongly dilated superficial veins in the leg due to dropsy.—**DOSES**: 0.015–0.12 Gm. ($\frac{1}{4}$ –2 grn.) *sev'l t.p.d.*—*Subcut.*, 0.5–1 cc. ($\frac{7}{16}$ –15 M) of a 1% aqu. solut. 3 t.p.d. inst. of digitalis.—**MAX. D.**: 0.12 Gm. (2 grn.) single, 1.5 Gm. (23 grn.) *p.d.*—**VETER. MED.**, constip. in horses, impaired action of the first stomach of cattle as an intestinal peristaltic. Must be used w. great caution. Dose for large horses & cattle, *per os* 5–10 Gm. (75–150 grn.), & *intraven.* 0.5–1.25 Gm. ($\frac{7}{16}$ –20 grn.) (half these doses where cardiac weakness exists); small horses, 2–5 Gm. (30–75 grn.) *per os*, & 0.25 Gm. (4 grn.) *intraven.* (cattle 5–10 Gm. [75 grn.–2 $\frac{1}{2}$ dr.]). **MAX. D.** for horses, 10 Gm. (150 grn.) *per os*, & 1 Gm. (15 grn.) *intraven.*; cattle 15 Gm. ($\frac{1}{2}$ oz.) *per os*.—**ANTID.**: Emetics, or stomach siphon followed by washing out w. a 1% sod. or magnesium sulphate solut. until no more BaSO_4 seen; enemas of sod. sulphate; chloroform or chloral hydrate in spasms; in colic & retarded pulse 0.001 Gm. ($\frac{1}{100}$ grn.) atropine sulph. subcut., repeated *sev'l* times if necessary.

do. Merck—Techn.—Cryst. or Powd.

USES: *Techn.*, manuf. pigments, color lakes, ceramics; mordant f. acid dyes; weighting &

dyeing textiles; in rat & vermin poisons; purify'g sugar juices; softening water; in boiler comp'ds; tanning & finishing leather.

Barium Chromate Merck—Powd.

Lemon Chrome; Ultramarine Yellow; Baryta Yellow; Steinbühl Yellow; Gelbin.— $\text{BaCrO}_4 = 253.37$.—Heavy, yellow, cryst., powd.—*SOL.*: Mineral acids; insol. W.—*USES*: Yellow paint; safety matches; as discharge in dyeing w. indigo; coloring ceramics, porcelains, & glass.

Barium Citrate

$\text{Ba}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 7\text{H}_2\text{O} = 916.36$.—Wh. powd.—*SOL.*: Sltly W.; insol. A.

Barium Cyanate

$\text{Ba}(\text{CNO})_2 = 221.40$.—Wh. cryst. powd.—*SOL.*: v. sltly W.

Barium Dichromate

Barium Bichromate.— $\text{BaCr}_2\text{O}_7 + 2\text{H}_2\text{O} = 389.40$.—Brownish-red, cryst. masses.—*SOL.*: Conc. aqu. solut. CrO_3 .

Barium Dioxide Merck—C.P.—Anhydrous

Barium Per- or Superoxide.— $\text{BaO}_2 = 169.37$.—Wh. or grayish-wh. powd.—*SOL.*: Dil. acids (H_2O_2 formed); insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.03%
Nitrate (NO_3)	0.00%
Alkali & Calcium	0.5%
Iron (Fe)	0.05%

USES: Reag. f. I (Riegler), & f. indican in urine (Riegler).

do. Merck—Anhydrous—Pure

DESCRPT., &c.: As of preced'g.

do. Merck—Anhydrous—Techn.

Yellowish or grayish-wh. powd.—*SOL.*: HCl, HNO_3 .—*USES*: Bleach. animal substcs, vegetable fibers, & straw; glass industry; manuf. H_2O_2 , & O (Brin's process); dyeing & printing textiles; w. powd. aluminum in welding.

Barium Dioxide Merck—Hydrated—Pure

Hydrated Barium Peroxide.— $\text{BaO}_2 + 8\text{H}_2\text{O} = 313.50$.—Wh. powd.; effloresc. in air.—*SOL.*: v. sltly W.; insol. A.—*USES*: Manuf. sugar, refin'g oils, softening water, manuf. special glass.

Barium Dithionate

Barium Hyposulphate.— $\text{BaS}_2\text{O}_6 + \text{aq.}$ —Fr. manganese dithionate & $\text{Ba}(\text{OH})_2$.—Colorl. cryst.—*SOL.*: W.; diffc. A.—*USES*: Manuf. aqu. solut. $\text{H}_2\text{S}_2\text{O}_6$.

BARIUM DIURANATE—see Uranium & Barium Oxide, Orange, or Yellow

Barium Ethylsulphate

Barium Sulphovinate.— $\text{Ba}(\text{C}_2\text{H}_5\text{SO}_4)_2 + 2\text{H}_2\text{O} = 423.62$.—Wh., lustrous leaf.—*SOL.*: Eas. W.; more diffc. A.

Barium Ferrocyanide

$\text{Ba}_2\text{Fe}(\text{CN})_6 + 6\text{H}_2\text{O} = 594.75$.—Yellowish cryst. powd.—SOL.: Sltly cold, more eas. hot, W.

Barium Fluoride Merck—C.P.—Powd.

$\text{BaF}_2 = 175.37$.—Wh. powd.—Insol. W.

MAXIMUM OF IMPURITIES

Carbonate (CO_2)	0.000%
Chloride (Cl)	0.010%
Sulphate (SO_3)	0.030%
Heavy Metals	Trace

Barium Formate

$\text{Pa}(\text{COOH})_2 = 227.40$.—Large, colorl. cryst.—SOL.: v. eas. W.

BARIUM HYDRATE—see Barium Hydroxide

Barium Hydroxide Merck—Reagent—Cryst.

Barium Hydrate.— $\text{Ba}(\text{OH})_2 + 8\text{H}_2\text{O} = 315.51$.—Colorl. or wh. cryst.—SOL.: Abt 15 W.; stlty A.; rapidly absorbs CO_2 fr. air.

MAXIMUM OF IMPURITIES

Substcs Insol. HCl	0.01%
Chloride (Cl)	0.002%
Sulphide (S)	0.001%
Alkalies & Foreign Earths	0.200%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

USES: Pptng Mg; fusing silicates; saponify'g fats; determ. alkalies & tryptophan; as standard solut. in volumetr. analysis; reag. f. albumin, & f. glucose (Carpené), phosgene (Ramsay), & carcinoma (Salomon).—CAUT.: Keep well stop'd.

Barium Hydroxide Merck—C.P.—Cryst.

Barium Hydrate; Caustic Baryta.— $\text{Ba}(\text{OH})_2 + 8\text{H}_2\text{O} = 315.51$.—Wh. or colorl., strongly caustic cryst.; absorb CO_2 fr. air & effloresce.—SOL.: 15 cold, abt 3 hot, W. w. turb. (due to traces of BaCO_3). Solut. strongly alkaline.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Sulphide (S)	0.003%
Alkalies & Foreign Earths	0.30%
Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—C.P.—Dried

$\text{Ba}(\text{OH})_2 + \text{aq.}$ —Wh. powd.—SOL.: Dil. HNO_3 , HCl, or $\text{HC}_2\text{H}_3\text{O}_2$; stlty W.

MAXIMUM OF IMPURITIES

Calcium & Alkalies	1.250%
Chloride (Cl)	0.010%
Sulphides (S)	0.006%
Heavy Metals	0.000%

do. —Pure—Cryst.

Wh. to stlty yellowish-wh. cryst.—SOL.: As of C.P. cryst.—ACTION: Caustic.—CAUT.: Keep well stop'd.

do. Merck—Technical

Wh. to yellowish-wh. effloresc. cryst.—SOL.: 15 cold, 3 boil., W. w. turbid. (due to BaCO_3).—USES: Boiler scale remedy; recovering sugar fr.

molasses; refining oils; softening water; manuf. glass; in fresco painting; manuf. Ba salts.

Barium Hypophosphite

$\text{BaH}_4(\text{PO}_2)_2 = 267.48$.—Wh., odorl., cryst. powd.—SOL.: Eas. W. (3.5 W., B.P.C.); insol. A.—ACTION & USES: As of calc. hypophosphite; also as test f. As (Covelli).—MAX. DOSE: 0.15 Gm. ($2\frac{1}{2}$ grn.) single, & 1 Gm. (15 grn.) p. d.

BARIUM HYPOSULPHATE—see Barium Dithionate

BARIUM HYPOSULPHITE—see Barium Thiosulphate

Barium Iodate

$\text{Ba}(\text{IO}_3)_2 + \text{H}_2\text{O} = 505.23$.—Wh. cryst. powd.—SOL.: v. stlty W.—ACTION: As of barium iodide, but strongly irritant.

Barium Iodide—Gran.

$\text{BaI}_2 + 2\text{H}_2\text{O} = 427.24$.—Wh., deliques. cryst. powd.—SOL.: A., acetone; v. eas. W.—ACTION: Alter.; Resolv.—USES: *Intern.*, scrof. affect., morbid growths.—*Extern.*, in 1%–2% oint. in hypertrophic glands.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) 3 t.p.d.—MAX. D.: 0.015 Gm. ($\frac{1}{4}$ grn.) single, 0.05 Gm. ($\frac{3}{4}$ grn.) p.d.—CAUT.: Keep well stoppered.

Barium Manganate

Manganese, Cassel's, or Rosenstiehl's, Green.— $\text{BaMnO}_4 = 256.30$.—Dark-green powd.—SOL.: v. stlty cold W.—USES: *Techn.*, as pigment in fresco painting, inst. of Scheele's green (not so poisonous as latter).

Barium Methylsulphate

$\text{Ba}(\text{CH}_3\text{SO}_4)_2 + 2\text{H}_2\text{O} = 395.58$.—Colorl. efflorescent cryst.—SOL.: W., A.—CAUT.: Keep well stoppered.

Barium Molybdate

$\text{BaMoO}_4 = 297.37$.—Wh. powd.—SOL.: Diffic. in acids; alm. insol. W.

BARIUM MONOXIDE—see Barium Oxide

Barium Nitrate Merck—Reagent—Cryst.

$\text{Ba}(\text{NO}_3)_2 = 261.39$.—Colorl. cryst.—SOL.: Abt 12 W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.0005%
Alkalies & Foreign Earths	0.050%
Iron (Fe)	0.000%
Other Heavy Metals	0.000%

USES: Pptg sulphates & carbonates; standardizing soap solut. f. water analysis.

Barium Nitrate Merck—C.P.—Cryst.

$\text{Ba}(\text{NO}_3)_2 = 261.39$.—Colorl. cryst.—SOL.: Abt 12 W. at 15° C., 2.8 boil. W., insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Alkalies & Foreign Earths	0.100%
Heavy Metals	0.000%

USES: As of the Reagent, above.

Barium Nitrate Merck—Cryst.

Wh. to brownish-wh. cryst. or powd.—SOL.: As of the preceding.—USES: *Techn.*, manuf. BaO_2 ; pyrotechn. (green fire); green signal lights; explosives; marine signals.

Barium Nitrite

$\text{Ba}(\text{NO}_2)_2 + \text{H}_2\text{O} = 247.40$.—Wh., to yellowish, cryst. powd.—SOL.: W., A.

Barium Oleate

$\text{Ba}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2 = 700.08$.—Yellowish-wh., granul. masses.—SOL.: v. sltly boil. A.; insol. W.—USES: Killing rats, mice, roaches, etc.

Barium Oxalate

$2(\text{BaC}_2\text{O}_4) + \text{H}_2\text{O} = 468.78$.—Wh., neutral powd.—SOL.: v. sltly W.

Barium Oxide—Pure—Anhydrous

Barium Monoxide; Barium Protoxide; Calcined Baryta.— $\text{BaO} = 153.37$.—Wh. to yellowish-wh. powd.; forms $\text{Ba}(\text{OH})_2$ on contact w. W., & great heat evolved.—SOL.: W.; dil. acids; w. H_2SO_4 forms insol. sulphate.—CAUT.: Poison! Keep well stoppered.

do. Merck—Anhydrous—Technical

Light-gray, porous lumps which on contact w. a little W. form $\text{Ba}(\text{OH})_2$, & great heat evol.—USES: Manuf. glass, oxygen, & explosives; manuf. Ba salts.

Barium Perchlorate

$\text{Ba}(\text{ClO}_4)_2 + 3\text{H}_2\text{O} = 390.34$.—Colorl. cryst.—SOL.: W., A.

Barium Permanganate

$\text{Ba}(\text{MnO}_4)_2 = 375.23$.—Brownish-violet cryst.—SOL.: W.—USES: Powerful disinfectant.

BARIUM PEROXIDE—see Barium Dioxide**BARIUM PEROXIDE, HYDRATED—see Barium Dioxide, Hydrated****Barium Phenolsulphonate**

Barium Sulphophenylate, or Sulphocarbolate. $\text{Ba}(\text{C}_6\text{H}_4.\text{OH}.\text{SO}_3)_2 + \text{H}_2\text{O} = 501.65$.—Wh. powd.—SOL.: W.—ACTION: Antisep.

Barium Phosphate—Secondary

$\text{BaHPO}_4 = 233.42$.—Wh. powd.—SOL.: Dil. HCl or HNO_3 ; sltly W.

Barium Phosphite

$\text{BaHPO}_3 = 217.42$.—Wh. powd.—SOL.: Sltly W.

BARIUM PLATINOCHLORIDE—see Platinum & Barium Chloride**BARIUM PLATINOCYANIDE—see Platinum & Barium Cyanide****BARIUM PROTOXIDE—see Barium Oxide****BARIUM RHODANIDE—see Barium Sulphocyanate****Barium Salicylate**

$\text{Ba}(\text{C}_6\text{H}_4.\text{OH}.\text{COO})_2 + \text{H}_2\text{O} = 429.54$.—Wh. need.—SOL.: W.

Barium Silicide

$\text{BaSi}_2 = 193.57$.—Metal-like, gray lumps; quite permanent in dry air, but decomp. by moisture w. evol. of H & H_4Si .—MELT.: At white heat.—USES: Deoxidizing & desulphurizing steel, & for o. metallurgical purposes.

BARIUM SOZOIODOLATE—see Soziodole-Barium**Barium Sulphate Merck—C.P.**

$\text{BaSO}_4 = 233.43$.—Fine wh. powd., insol. W., A., or dil. acids.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Phosphate (P_2O_5).....	0.000%
Arsenic (As).....	0.000%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%
Soluble Barium Salts.....	None

do. Merck—U.S.P. X, For X-ray Diagnosis—Free from Soluble Barium Salts, etc.

A particularly pure barium sulphate which is free fr. all sol. barium salts, & specially intended f. use in X-ray work.—DOSE: 150–200 Gm. (5–6½ oz.), stirred w. W. (warm or cold) to a consistency suitable f. swallowing; the mixt. can be conveniently taken in two portions; it may also be injected rectally.—Suitable mixtures may also be prepared as follows: Contrast meal f. *gastric & intest.* observation: Boil 15 Gm. (½ oz.) ea. of corn meal & sugar, 20 Gm. (5 dr.) cacao & 150 Gm. (5 oz.) barium sulphate for X-ray diagnosis, w. 500 cc. (abt 1 pint) water.—Meal f. diagnos'g *stenosis of small intestine & volvulus*: 80 Gm. (abt 2½ oz.) barium sulphate f. X-ray diagnosis & 200 Gm. (abt. 6½ fl. oz.) oat-meal gruel.—As enema f. *observ'g large intestine*: Boil 30 Gm. (1 oz.) corn meal w. 750 cc. (25 fl. oz.) water, then add a suspension of 200 Gm. (abt 6½ oz.) barium sulphate f. X-ray diagnosis in 500 cc. (abt 1 pint) water. A purgative is to be given the day before, and a cleansing enema immediately before the rectal injection is made.—Injection f. *pyelographic observ'n of urinary tract*: 1 part barium sulphate f. X-ray diagnosis suspended in 5 parts expressed oil almond.—CAUT.: Spell out the word "Sulphate" in full, to avoid getting the *sulphide* or *sulphite* which are poisonous; such accidents have occurred.—NOTE: For X-ray work, barium sulphate is most conveniently exhibited in the form of SKIABARYT (which see), from which permanent suspensions can instantly be made.

do. Merck—Precip.—(Not for Internal Use)

Synthetic Barytes; Artificial Heavy Spar; Blanc Fixe; "Snow," "New," "Constant," "Baryta," "Mineral," or "Permanent," White. $\text{BaSO}_4 = 233.44$.—Heavy, fine wh. powd.—Insol. W. & dil. acids.—USES: *Techn.* as a W.-color pigment, f. colored paper, in wall-paper, as a size, modifying the colors of o. pigments, &c.—NOTE! This prep. must *not* be used intern. as it cannot be guaranteed free fr. poisonous

soluble Ba salts. For intern. use only the Barium Sulphate f. X-ray Diagnosis, or better, SKIABARYT (*q.v.*), is permissible.

Barium Sulphate Cream—see Gelobarin

Barium Sulphide Merck—Gray, abt 80%—Pure

BaS = 169.43.—Grayish-wh. powd.—ACTION: Alter.; Depilatory.—USES: Intern. (rarely) syph. & scrof.—*Extern.*, as depil. w. 1–3 parts flour or starch, & water to make a paste.—DOSE: 0.02–0.06 Gm. ($\frac{1}{3}$ –1 grn.) in keratin-coated pills.—CAUT.: Keep well stoppered.

do. —Gray, abt 60%—Powd.

Grayish-wh. powd.—ACTION & USES: As of preced'g.

do. Merck—Yellow, abt 75%

Pale yellow powd.—USES: As of the Black, Techn.

do. Merck—Technical

Heavy, brownish-black or black powd. or lumps; abt 60%–70% BaS; decomp. in damp air (changed into carbonate etc. w. evol. of H₂S).—SOL.: Sltly cold, more so in hot, W., & in solut. NH₄Cl; decomp. by acids.—USES: As depilatory.

Barium Sulphite

BaSO₃ = 217.43.—Wh. powd.—SOL.: Dil. HCl; the solut. is sltly turbid, due to presence of BaSO₄ formed by oxidation of BaSO₃.—USES: Anal.; paper manuf.

Barium Sulphocarbolate—see Barium Phenolsulphonate

Barium Sulphocyanate

Barium Rhodanide, or Sulphocyanide.—Ba(SCN)₂ + 3H₂O = 307.56.—Colorl., deliquescent. cryst.—SOL.: v. eas. W., A.—USES: Dyeing, & photogr.—CAUT.: Keep well stop'd.

Barium Sulphocyanide—see Barium Sulphocyanate

Barium Sulphophenylate—see Barium Phenolsulphonate

Barium Sulphovinate—see Barium Ethylsulphate

Barium Sulphydrate

Ba(SH)₂ = 203.51.—Yellow cryst.—SOL.: W.—CAUT.: Keep well stoppered.

Barium Superoxide—see Barium Dioxide

Barium Tartrate

BaC₄H₄O₆ = 285.42. — Wh. powd. — SOL.: v. sltly W.

Barium Thiosulphate

Barium Hyposulphite.—BaS₂O₃ + H₂O = 267.51.—Wh., cryst. powd.—SOL.: v. sltly W.—USES: *Techn.*, manuf. luminous paints & varnishes, explosives, & matches.

Barium Tungstate—Normal

Barium Wolframate; "Barium, or Tungsten, or Wolfram, White."—BaWO₄ = 385.37.—Wh. powd.; insol. W.—USES: Pigment.

"BARIUM WHITE"—see Barium Tungstate

Barium Wolframate—see Barium Tungstate

Barley Flour Merck

A prime quality of barley flour carefully selected for use in connection with milk sugar for preparing "modified milk" for infants. Also useful in the diet of invalids, & as a food for fever patients because so nutritious & easily digested.

Baros Camphor—see Borneol

Barosmin (Concentration)

Buchu Resin.—Fr. lvs of Barosma (Buchu) genus.—Brown, arom. powd.; pung., bitter taste.—SOL.: A.—ACTION: Diuret.; Antisep.—USES: Genito-urinary dis.—DOSE: 0.12–0.25 Gm. (2–4 grn.).

Barreswill's Solution—Test for Glucose (Dextrose)

Similar to Fehling's reagent, but contains KOH instead of NaOH.

BARYTA, CALCINED—see Barium Oxide

BARYTA, CAUSTIC—see Barium Hydroxide

"BARYTA" WHITE—see Barium Sulphate

BARYTA YELLOW—see Barium Chromate

BARYTES—see Barite

BARYTES, SYNTHETIC—see Barium Sulphate

BASSWOOD—see Tilia

BASTARD SAFFRON—see Carthamus

Baudouin's Solution—Test for Sesame Oil

Solut. 1 Gm. sugar in 100 cc. HCl (Sp. Gr. 1.18).—Shake 10 cc. oil w. 5 cc. solution—if sesame oil present a red color develops.

Bauxite—Mineral

COMPOS.: Al₂O(OH)₄.—LUSTER: Dull to earthy.—COLOR: Wh., yellow, red, brown.—STREAK: Like color.—FRACT.: Conch.—HARDN.: 1–3.—SP. GR.: 2.55.—USES: Prep. metal Al, & Al comp'ds; manuf. basic furnace or converter linings, abrasives, cements f. kilns; clarifying molasses; decolorizing petroleum; manuf. pigments, & as varnish filler.

BAY, or BAYBERRY—see Laurel Berries

Bayberry Bark—N.F. V

Candleberry; Myrica; Wax Myrtle; Wax Berry; Tallow Shrub.—Dried root bark of Myrica cerifera, L., Myricaceæ.—HABIT.: Maryland to Florida, west to Texas & Arkansas.—CONSTIT.: Acid resin; astring. resin; myricinic acid; tannin; gallic acid; red color'g matter; gum; starch, &c. Bayberry wax consists of palmitin, palmitic acid, myristin, & lauric acid.—ACTION: Alter.; Cholag.; Astring.—USES: Diar., scrof., & jaundice.—*Extern.*, in ulcers, sore throat, & leucor.—DOSE: aver., 0.5 Gm. (8 grn.).—Fl' dextr., 1.3–4 cc. (20–60 M).

BAYER 205—see Germanin

Beale's Ammonia-Carmine

1 Gm. carmine, 5 cc. NH₄OH, 110 cc. W., 80 cc. G., & 30 cc. absol. A.—USES: Staining nerve & bone tissue.

BEARBERRY—see *Cascara Sagrada*; *Uva Ursi*

BEAR'S WEED—see *Eriodictyon*

BEARWOOD—see *Cascara Sagrada*

BEAVER, CANADIAN & SIBERIAN—see *Castor*

Bebeerine Merck

Bebirine; Bibirine; supposed identical w. Buxine & Pelosine.— $C_{18}H_{21}NO_3 = 299.27$.—Fr. bark *Nectandra Rodiaei*, Schomb., or *Paireira brava*.—Yellowish-brown, amorph. odorl. bitter powd.—SOL.: A., C., acids; more diffic. in E.—MELT.: $180^\circ C$.—ACTION: Antipyr. & Tonic, like quinine.—USES: Intermittent fever.—DOSES: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) 3 or 4 t.p.d., as tonic; febrif., 0.2–1 Gm. (3–15 grn.).

Bebeerine Hydrochloride Merck

$C_{18}H_{21}NO_3 \cdot HCl = 335.74$. — Reddish-brown scales.—SOL.: W., A.—MELT.: 259° – $260^\circ C$.—ACTION: Antipyr.; Tonic.—USES & DOSES: As of bebeerine.

Bebeerine Sulphate Merck

$(C_{18}H_{21}NO_3)_2 \cdot H_2SO_4 = 696.62$. — Reddish-brown scales.—SOL.: W.—ACTION: Tonic; Febrifuge.—USES & DOSES: As of bebeerine.

Bebeeru Bark—B.P.C.

Greenheart; Bibiru, or Sipiri, Bark.—Fr. *Nectandra Rodiaei*, Hook., Laurineæ.—HABIT.: British Guiana.—CONSTIT.: Bebeerine; sipirine; bebeeric acid; tannin; resin; gum; sugar.—ACTION: Bitter Tonic; Antipyretic like quinine.—USES: Intermittent fever, dysmenorrh., menorrhagia, leucorrhœa.—DOSE: Tonic, 0.12–0.3 Gm. (2–5 grn.); antipyr., 1–4 Gm. (15–60 grn.).

BEBIRINE—see Bebeerine

Bechl's Solution—Test for Cottonseed Oil

Solut. 1 Gm. $AgNO_3$ in 100 cc. alcoh. (98%).—Mix 5 cc. suspected olive oil w. 5 cc. solution & 25 cc. 98% A. & heat to $84^\circ C$.—a darkening indicates presence of cottonseed oil.

Bechi-Hehner's Solution—Test for Cottonseed Oil

1 Gm. $AgNO_3$, 200 Gm. A., 40 Gm. E., & abt 0.1 Gm. HNO_3 .—Mix 10 cc. suspected fat or oil w. 5 cc. solution, & heat in steam-bath $\frac{1}{4}$ hr w. freq. shak.—a reddish-brown to black color develops accord. to quant. of cottonseed oil present.

BEDSTRAW—see *Galium*

BEE BALM—see *Melissa*

BEE BREAD—see *Borage*

BEE SWAX—see *Wax*, Yellow

BEE SWAX, BLEACHED—see *Wax*, White

Behrens' Glycerin-Isinglass

Solut. 60 Gm. isinglass, 100 cc. W., & 100 cc. G.; solidifies on cooling to a clear mass.—USES: Preserv. plant specimens.

Behrens' Zinc Chloro-iodide—For Cellulose

Aqu. solut. 25 Gm. $ZnCl_2$, 8 Gm. KI, & excess I in 8.5 cc. W.—USES: In botanical microsc. f. detect. cellulose.

BEL, or BELA—see *Bael*

Belladonna Leaves—U.S.P. X; B.P.; Fr. Cod.

Deadly Nightshade; Death's Herb; Banewort; Dwale; Poison Black Cherry.—Dried lvs & tops of *Atropa Belladonna*, L., Solanaceæ, cont'g not less than 0.3% alkaloids.—HABIT.: Southern & Central Europe; Asia Minor; Algeria; cultiv. in N. America.—CONSTIT.: Atropine; hyoscyamine; scopalamine; chrysotropic acid (scopoletin); succinic acid; chlorophyll; pyridine; belladonnine; atrosine; apotropine (atropamine?).—ACTION: Diuret.; Nervine; Mydriatic; Narcotic; Sedat.; Antispasm.; Anodyne.—USES: Pain, asthma, nervous cough, incontin. urine, night sweats; antid. to morphine or opium.—Extern., rigid os uteri, neuralg., rheumat., &c.—Techn., manuf. atropine & hyoscyamine.—DOSES: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); aver. dose, 0.06 Gm. (1 grn.); Max. D., 0.2 Gm. (3 grn.) single, 0.6 Gm. (10 grn.) p.d.—Extr., 0.008–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.), Max. D., 0.06 Gm. (1 grn.) single, 0.2 Gm. (3 grn.) daily; Extern., in rheumat. neuralg., &c., in 1:5–10 oint., in tenesmus, 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.) in suppository; as enema, 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.) in abt 100 cc. ($3\frac{1}{2}$ fl. oz.) water.—Aqu. extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—Liq. extr., 0.06–0.2 cc. (1–3 M).—Tinct. (1:10), 0.5–2 cc. (8–30 M).—Succus, 0.3–1 cc. (5–15 M).—ANTID.: Emetics; stimulants; morphine; pilocarpine; physostigmine; tannin.—CAUT.: Poison!

do. Root—U.S.P. X; B.P.

Dried root of *Atropa Belladonna*, L., Solanaceæ (yield'g not less than 0.45% alkaloids, U.S.P.).—HABIT.: See *Belladonna Leaves*.—CONSTIT.: As of *Belladonna Leaves*.—ACTION: Narcot.; Mydriatic; Sedat.; Antispasm.; Anod.—DOSES: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); aver. dose 0.045 Gm. ($\frac{3}{4}$ grn.); Max. D.: 0.15 Gm. ($\frac{1}{2}$ grn.) single, & 0.5 Gm. (8 grn.) daily.—Alcoh. extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—Fl'dextr., 0.03–0.12 cc. ($\frac{1}{2}$ –2 M); Max. D.: 0.2 cc. (3 M) single, 0.6 cc. (10 M) p.d.—Green Extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—Liq. Extr. (B.P.) 0.02–0.06 cc. ($\frac{1}{2}$ –1 M).—ANTID.: Same as for *belladonna leaves*.—CAUT.: Poison!

BELLADONNA PLASTER, LIQUID—see *Collodion*, *Belladonna*

Belladonnine

$C_{17}H_{21}NO_2 = 271.26$ (Merling).—Fr. mother-liquor of atropine cryst.—Light-yellow, viscid mass.—SOL.: Eas. A., C., E.; v. sltly in W.—ACTION: Mydriatic.

Benedict's Solution—Test for Glucose (Dextrose)—Qualitative

17.3 Gm. cryst. $CuSO_4$, 173 Gm. sod. citrate, 100 Gm. anhydr. Na_2CO_3 , & W. to 1000 cc.—Used like Fehling's solution.

Benedict's Solution—Test for Glucose (Dextrose)—Quantitative

200 Gm. cryst. Na_2CO_3 , 200 Gm. sod. citrate, 125 Gm. KSCN , & W. to 800 cc.; then add a solut. of 18 Gm. cryst. CuSO_4 , 5 cc. 5:100 solut. potass. ferrocyanide, & enough water to make 1000 cc.—25 cc. solut. = 0.05 Gm. glucose.

BENGAL ISINGLASS—see Agar

BENGAL KINO—see Butea Gum

BENGAL QUINCE—see Bael

Benzacetic

Acetaminoethylsalicylic Acid.— $\text{C}_6\text{H}_3(\text{OC}_2\text{H}_5)(\text{NH}.\text{COCH}_3)\text{COOH}$ = 223.17.—Wh. cryst.—SOL.: A.; sltly in W.—MELT.: 205°C .—ACTION: Antineuralg.; Sedat.; Anod.—USES: Neuralg.; habitual headache, migraine.—DOSE: 0.5–1 Gm. (8–15 grn.).

Benzal Chloride

Benzyl Dichloride; Benzylidene, or Benzylene, Chloride; Chlorbenzol. — $\text{C}_6\text{H}_5.\text{CHCl}_2$ = 161.00.—Fr. toluene by Cl or PCl_5 .—Colorl., v. refract. liq.; fumes in air; when heated, vapors irrit. the eyes; pungent odor.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 1.29.—BOIL.: 206°C ., but not without decomp.—USES: Manuf. benzaldehyde, & benzoic & cinnamic acids; in test f. aromatic hydrocarbons (Lippmann-Pollak).

BENZAL GREEN—see Malachite Green

BENZALACETONE—see Benzylideneacetone

Benzaldehyde Merck—U.S.P. X

Benzoic Aldehyde; Artificial Essential Oil of Almond; Benzoyl Hydride.— $\text{C}_6\text{H}_5.\text{COH}$ = 106.08.—Fr. benzyl chloride & solut. $\text{Pb}(\text{NO}_3)_2$ by heat.—Colorl. to yellowish, strongly refract. liq.; charact. pleas. odor of vol. oil almond; burn. arom. taste; free fr. Cl & HCN ; odor of HCN .—SOL.: A., E., oils; 350 W.—SP. GR.: Abt 1.045 at 25°C ., (U.S.P.—BOIL.: 177° to 179°C .—USES: Non-poisonous flavor; *chem.*, as test for alkaloids (Melzer); and fusel oil (Komarowsky; Takahashi); *techn.*, in manuf. of dyes, perfumery.—DOSE: *Aver.*, 0.03 cc. ($\frac{1}{2}$ M).

BENZALDEHYDE GREEN—see Malachite Green

Benzaldehydecyanhydrin

Mandelicacid Nitrile.— $\text{C}_6\text{H}_5.\text{CH}(\text{OH}).\text{CN}$ = 133.10.—Fr. KCN , benzaldehyde, & fum. HCl .—Yellow, oily liq.—SOL.: A., E.; insol. W.—SP. GR.: 1.115–1.120 at 20°C .

Benzamide

$\text{C}_6\text{H}_5.\text{CONH}_2$ = 121.10.—Fr. benzoyl chloride by NH_3 or ammon. carb.—Colorl. cryst. powd.—SOL.: A., E.; in NH_4OH w. format. of small quant. benzonitrile; sltly W.—MELT.: 128°C .—BOIL.: 299°C .—USES: Test f. glycocoll (Denigès).

BENZAMINE HYDROCHLORIDE—see Eucaine Hydrochloride

BENZAMINE LACTATE—see Eucaine Lactate

m-BENZAMINOCARBAZIDE—See Cryogenine

BENZANALGEN—see Analgen

Benzanilid

Benzoylanilide; Phenylbenzamide.— $\text{C}_6\text{H}_5.\text{NH}(\text{CO}.\text{C}_6\text{H}_5)$ = 197.16.—Fr. benzoic anhydride

& aniline.—Wh. to reddish-wh. cryst.—SOL.: 58 cold & 7 hot A.; sltly in E.; alm. insol. W.—MELT.: 162°C .—ACTION: Antisep. in infectious diseases, especially in children; Antipyr.—USES: *Intern.*, pneum., meningitis, phth., bronch.—*Techn.*, manuf. dyes & perfumes.—DOSES: *Children*, 1–8 yrs old 0.1–0.36 Gm. ($1\frac{1}{2}$ –6 grn.), & older childr. 0.6 Gm. (10 grn.); *adults*, 0.6–1 Gm. (10–15 grn.).—MAX. ADULT D.: 3 Gm. (45 grn.) p.d.

Benzedol

Calcium o-Benzoyloxybenzoate, or Benzylsalicylate.— $\text{Ca}(\text{C}_6\text{H}_5\text{CH}_2.\text{OC}_6\text{H}_4\text{O}_2)_2$ = 470.38.—Alm. wh. powd.—SOL.: W.—ACTION: Anodyne; Relaxant of Unstripped Muscle; Antispasmodic.—DOSE: 0.5 Gm. ($7\frac{1}{2}$ grn.) in spasmodic dysmenorrhea.

Benzene Merck—Reagent

Benzol.— C_6H_6 = 78.08.—Clear, colorl. liq.; charact. odor.—SOL.: A., C., E.; insol. W.—SP. GR.: Abt 0.884.—BOIL.; Abt 80°C .—SOLIDIF.: Abt 5°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Acid.....	None
CS_2	0.003%
Substcs Darkened by H_2SO_4 ...	None
Thiophene.....	0.000%

USES: Solvent f. fats, resins, alkaloids, etc.; analysis of sheep dips; in forensic analysis.

Benzene Merck—C.P., Crystallizable

Benzol; Phenyl Hydride; Coal Naphtha.— C_6H_6 = 78.08.—Colorl., mobile, h'ly refract. liq.; charact. odor; below 4°C ., colorl., trimet., pyramidal cryst.—SOL.: A., C., E., acetone, glac. acetic acid, oils; insol. W.—BOIL.: Abt 80°C .—SOLIDIF.: 4° – 5.5°C .—SP. GR.: Abt 0.884 at 15°C .—FLASH POINT: -15°C .

MAXIMUM OF IMPURITIES

Substcs Darkened by H_2SO_4 ...	None
Thiophene.....	0.037%

USES: *Chem.*, as solvent f. fats, resins, alkaloids, etc.; anal. of sheep dips.—*Medic.*, as an Antispasm. & Anticatatarrhal, Antisep., & Parasiticide; *intern.*, in whoop-cough, influenza, abnorm. gastric fermentation, chron. vomiting, trichinosis (w. laxatives), worms; also in leucemia; *extern.*, pure or as oint. in scabies, head & body lice, pityriasis; as enema (3–8 Gm.: 500 cc. W.) in trichinosis; in trichocephalus dispar (5:500 W.); as rectal lavage in oxyuris vermicularis ($\frac{1}{2}$ tablespoonful: 1 qt warm W.). Also by inhal'n in whoop-cough.—DOSE: 0.12–0.6 cc. (2–10 M) sev'l t.p.d. in emulsion, or on sugar or in gelat. caps., or as enema; in leucemia, 0.4 cc. (7 M), incr'd cautiously to 1 cc. (15 M) single, & up to 5 cc. (75 M) p.d.—MAX. D.: 3 cc. (45 M) single.—In VETER. MED., as anthelmintic; *horses & cattle*, 20–80 cc. (5–20 dr.); *goats, sheep & pigs*, 2–5 cc. (30–75 M); *dogs*, 1–4 cc. (15–60 M); also *extern.* as antiparasitic f. mites, fleas, lice, etc. w. oil or fat 1:3–5.—ANTID.: When taken internally, stomach siphon, emetics, artif. respir'n, stimulants.

Benzene Merck—Pure**do. —From Benzoic Acid**

Clear, color. liq.; charact. odor.—SOL.: Absol. A., E., & o. organ. solvents; insol. W.—SP. GR.: 0.8848 at 15° C.—BOIL.: 80° C.—MELT.: 5° C.

do. —Technical

USES: Manuf. synthet. indigo & dyes; fuel, welding; explosives; solvent f. fats, oils, resins, Br, I, S, P, etc.; manuf. rubber, nitrobenzene, & intermediates; paint & varnish remover; in electro-techn., fotogr., etc.

BENZENE BROMIDE—see Monobrombenzene

BENZENE CHLORIDE—see Monochlorbenzene

Benzene Dibromide

Paradibromobenzene (or, -zol).— $C_6H_4Br_2$ [1:4] = 235.87.—Fr. benzene & Br.—Colorl. cryst.; charact. odor resembl. that of xylene.—SOL.: A., B., C., E.; insol. W.—MELT.: 86° C.—BOIL.: 219° C.—USES: Organ. synthesis.

BENZENE DICHLORIDE—see Dichloride

Benzene Dichloride

Paradichlorobenzene, (or -zol).— $C_6H_4Cl_2$ = 146.98.—Fr. benzene & Cl.—Colorl. cryst.; pleas. sweetish odor.—SOL.: Eas. hot absol. A., B., C., E., CS_2 .—MELT.: 53° C.—BOIL.: 172° C.—USES: Moth killer; also f. killing roaches, butterflies, etc.—VETER. MED., as 1:3 oint. in sarcoptes itch in dogs, & as spray f. wounds of all kinds; picking up nails, killing lice & o. vermin.

Benzene Hexachloride

α -Hexachlorocyclohexene.— $C_6H_6Cl_6$ = 290.84.—Fr. benzene, Cl, & NaOH.—Wh. cryst. powd.; charact. odor.—SOL.: B., C., hot A.; insol. W.—MELT.: 157° C.

BENZENE IODIDE—see Iodobenzene

BENZENE MONOBROMIDE—see Monobrombenzene

BENZENE MONOCHLORIDE—see Monochlorbenzene

Benzene Sulphochloride Merck

Benzol Sulphochloride.— $C_6H_5SO_2Cl$ = 176.59.—Fr. sod. sulphochloride by PCl_5 .—Colorl., oily liq.; solidif. at 0° C. to cryst.—SOL.: A., E.; insol. W.—BOIL.: 247° C. w. decomp.—USES: Test f. guanidine (Ackermann).—*Techn.*, as an intermediate.

Benzene Tribromide—Symmetrical

Tribrombenzene.— $C_6H_3Br_3$ [1:3:5] = 314.81.—Fr. tribromaniline, benzene, H_2SO_4 , & $NaNO_2$ by heat.—Wh., acic. cryst.; faint arom. odor.—SOL.: Hot A., B., C., E.; stly cold A.; insol. W.—MELT.: 122° C.—BOIL.: 274.5° C.

BENZENEAZOANILINE—see Diazoaminobenzene

BENZENEHEXOBENZENE—see Azobenzene

BENZENEHEXACARBONICACID-TRIIMIDE—see Paramide

BENZENYL TRICHLORIDE—see Benzo trichloride

Benzidine Merck—Reagent

Paradiaminodiphenyl. — $(C_6H_4)_2(NH_2)_2$ = 184.15.—Wh. or stly reddish, cryst. powd.—SOL.: Diffic. cold (abt 1:2500), more readily in boil'g, W.; A.; E. (abt 1:40).—MELT.: Abt 128° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter..... 0.0500%

Sulphate (SO_3)..... 0.0125%

USES: Detecting blood (Adler; Ascarelli; Assanelli; Bordes; Citron; Einhorn; Gigli; Greef; Macweeny; Messerschmidt; Walter); microchem. detect'n of erythrocytes & leucocytes; pptng sulphates partic. in water anal. (Raschig); reag. f. O_3 (Arnold-Mentzel), oxidizers (Denigès), tribromphenol bromide (Lloyd), NO_2 (Primot), H_2O_2 (Rothenfusser), milk (Wilkinson); also f. lignin, wood pulp, perchlorates, periodates, persulphates, percarbonates, perborates, Cl, Au, Pt, HCN.

Benzidine Merck—C.P.

Paradiaminodiphenyl.— $NH_2.C_6H_4.C_6H_4.NH_2$ = 184.15.—Fr. azobenzene by Sn & HCl.—Wh., or stly reddish cryst. powd.—SOL.: Diffic. cold (1:2500) cold, more readily in boil. W.; A., E. (abt. 1:40).—MELT.: Abt 128° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter..... 0.100%

Sulphate (SO_3)..... 0.013%

USES: As of the Reagent, above.

do. —Technical

Reddish-gray, lustr. cryst. powd.—USES: Manuf. dyes.

Benzidine Hydrochloride

$NH_2.C_6H_4.C_6H_4.NH_2.2HCl$ = 257.11.—Wh. cryst.—SOL.: W., A.—USES: Quant. Determ. H_2SO_4 or sulphates.

Benzidine Sulphate

Paradiaminodiphenyl Sulphate. — $C_{12}H_{12}N_2.H_2SO_4$ = 282.25.—Wh., cryst. powd.—Alm. insol. boil. W. & A.—USES: Manuf. dyes.

BENZIL—see Benzile

α -BENZILDIOXIME—see α -Diphenylglyoxime

Benzile

Benzil; Dibenzoyl.— $C_6H_5.(CO)_2.C_6H_5$ = 210.15.—Fr. benzoin by oxid. w. HNO_3 , & by o. methods.—Yellow need.—SOL.: A., E.—MELT.: 90° C.—BOIL.: 347° C.

Benzin Merck—C.P.—Boil. 30°–80° C.

Petroleum Ether or Benzin.—Clear, colorl., non-fluorescent, highly inflammable liq.; characteristic petroleum-like odor; the vapors mixed w. air explode if ignited.—SP. GR.: 0.640–0.670.

MAXIMUM OF IMPURITIES

Nonvol. Matter..... 0.002%

Acid..... 0.00%

Sulphur Comp'ds & Reduc'g

Substcs..... 0.000%

USES: Forensic anal.; solvent f. fats, resins,

alkaloids, etc.; detect'g water in organic liquids.

Benzin Merck—Purified

Petroleum Ether; Naphtha; Petroleum Naphtha.—Low-boil. fractions of petroleum obt'd by distil'n.—Light, transp., colorl., non-fluoresc., inflamm. volat. liq. of charact. odor; princip. hydrocarbons of methane series & homol. compds.—MISC.: All proport. absol. A., B., C., E., oils (except castor oil), CS₂; insol. W.—BOIL.: 30°–75° C.—ACTION: Counterirrit. & Parasiticide.—USES: *Intern.*, chiefly in domestic practice (bronch. troubles, worms, itch, lice, &c.); also in trichinosis.—*Extern.*, in rheumat.; in seborrhea f. remov'g grease fr. the skin; also as solvent f. I in skin disinfection.—*Techn.*, solvent f. fats, & in extractions.—DOSE: 0.3–1 cc. (5–15 M) in mucilage or gelat. caps.—MAX. D.: 5 cc. (75 M) daily.—APPL.: In rheumat.; mixt. of 4 vol. benzin w. 1 vol. E. as loc. anesth.—VETER. MED., as anthelmintic f. dogs (10–30 cc. [2½–8 fl. dr.]), & extern. f. mites & lice.—ANTID.: Excitants; stimulants; stomach siphon.—CAUT.: Highly inflammable! Keep well stoppered.

do. —Technical

Low-boil. fractions of petroleum.—Nonfluoresc., eas. inflamm., vol. liq.; charact. odor.—SOL.: Eas. absol. A., B., C., E.; insol. W.—SP. GR.: 0.730–0.750 at 15° C.—BOIL.: 80°–130° C.—USES: *Techn.*, solvent f. oils, fats, waxes, etc.; detergent; fuel; in paints & varnishes; insecticide; also in photography & dental techn.

BENZINFORM—see Carbon Tetrachloride

BENZOARIC ACID—see Gallogen

Benzoazurine G

Sodium Dianisidindisazobi-1-naphthol-4-sulphonate.—C₂₄H₂₄N₄O₁₀S₂Na₂ = 758.51.—Bluish-black powd.—SOL.: W.—USES: Staining cells, & in chemotherapy; dyeing cotton blue in soap bath.

BENZOBIS—see Mesuroil

BENZOCAINE—see Ethyl Aminobenzoate

BENZOCOTOIN—see Hydrocotoin

BENZOEUGENOL—see Benzoyl Eugenol

BENZOGLYCOCOLL—see Acid Hippuric

BENZOIC ALDEHYDE—see Benzaldehyde

BENZOIC TRICHLORIDE—see Benzotrichloride

Benzoïn—(Not Gum Benzoin)

Phenylbenzoylcarbinol; Bitter - Almond - Oil Camphor; Oxyphenylbenzylketone.—C₆H₅·CH(OH)·CO·C₆H₅ = 212.17.—Fr. benzaldehyde & KCN.—Colorl. cryst.—SOL.: E.; sltly cold, more eas. hot. A.; insol. W.—MELT.: 134°–136° C.—BOIL.: Abt 344° C.—ACTION: Antisep.—USES: *Extern.*, ulc. & varicose veins.—APPL.: 20% oint.

Benzoin—U.S.P. X; B.P.; Fr. Cod.

Gum Benzoin; Gum Benjamin; Resin Benzoin.—Balsamic resin fr. *Styrax Benzoin*, Dryander, *Styracæ* (*Sumatra Benzoin*); & o. spec. of *S. (Siam Benzoin)*.—HABIT.: *Siam*, *Siam*, *Cambodia*, & *Cochin China*; *Sumatra*, *Sumatra*, *Java*, & *Sunda Islands*.—SOL.: *Siam*, not less than 90% in A., & *Sumatra*, not less than 75% in A., U.S.P.—CONSTIT.: Ethereal oil; benzoic & cinnamic acids, free & combined (up to 38%); vanillin (0.15%); resin (a mixt. of benzoeresinol & benzoeresinotannol) esterified w. benzoic acid; styrol; styracin.—ACTION: Expector.; Stim.; Antisep.; Preservative.—USES: *Intern.*, in chron. catarrh, & as expector. constit. of cough mixt.; also as tinct. (partic. comp'd tinct.) w. hot W. f. inhalations.—*Extern.*, as dress. f. wounds (in form of tinct. dil'd w. water).—*Techn.*, preserv. oints; prep. benzoic acid; cosmetics; fumig. pastilles; stove lacquer; varnishes; perfumery, chocolate coating.—DOSES: 0.3–2 Gm. (5–30 grn.); aver. dose, 1 Gm. (15 grn.).—Tr., 0.6–2.6 cc. (10–40 M).—Comp. Tr. (benzoin, aloe, storax, & bals. tolu), 1–4 cc. (15–60 M) as stim. expector.—INCOMP.: Acids, alkalies, W.

Benzoiodhydrin

Chloriodobenzoic-acid Glycerin Ester.—C₃H₅ICl·C₇H₅O₂ = 324.51.—Brown, cryst. powd.—SOL.: A., C., E., petrol. E.; insol. W., G.—USES: Instead of alkali iodides; given as Saccharated Benzoiodhydrin (*q.v.*).

do. —Saccharated

Mixt. of benzoiodhydrin (3.25%) & sugar.—USES: Instead of iodides.—DOSE: 4–16 Gm. (60–240 grn.) p.d.—NOTE: 4 Gm. (60 grn.) cont. abt 0.13 Gm. (2 grn.) benzoiodhydrin.

BENZOL—see Benzene

BENZOL SULPHOCHLORIDE—see Benzene Sulphochloride

BENZONAPHTHOL—see Betanaphthol Benzoate

Benzonitrile

Phenyl Cyanide; Cyanbenzene.—C₆H₅.CN = 103.08.—Fr. ammon. benzoate by dry dist'n.—Colorl. to sltly yellowish, v. refract., inflam. liq.; odor of volat. oil almonds; burn. taste.—SOL.: A., & E., all proport.; v. sltly cold, more eas. hot, W.—SP. GR.: 1.009.—BOIL.: 190° C.—USES: Organ. synthesis.—CAUT.: Very toxic.

BENZOPHENOL—see Phenol

Benzophenone

Diphenylketone; Diphenylmethanon.—C₆H₅·CO·C₆H₅ = 182.15.—Fr. calc. benzoate by dry dist'n.—Large, rhomb., vitr., colorl. cryst.; pecul. odor, partic. on heat.—SOL.: Eas. A., C., E.; insol. W.—MELT.: 48° C.—BOIL.: 306° C.—ACTION: Sltly Hypnotic.—USES: Experimental comparisons of different groups of hypnotics. Reported to be physiologically inactive.—DOSE: 0.2–0.5 Gm. (3–8 grn.).

BENZOPHENONE OXIDE—see Xanthone

Benzopurpurine 4 B

Eclipse Red; Fast Scarlet; Azamin 4 B.; Cotton Red 4 B.—Sodium orthotoluidindisazobinaphthylaminesulphonate.—Brown or red powd.—SOL.: W.—USES: Dyeing cotton.

BENZOQUINONE—see Quinone

Benzosalin

Methyl Benzoylsalicylate; Benzoylsalicylic-acid Methyl Ester.— $C_6H_5CO.OC_6H_4CO_2CH_3$ = 256.17.—Colorl. cryst.—SOL.: B., C., 35 A. (90%); H_2SO_4 ; more diffic. E.; insol. W.—MELT.: Abt 85° C.—ACTION: Intest. Antiseptic & Disinf.—USES: Artic. rheum., neuralg., &c.—DOSE: 0.5–1 Gm. (8–15 grn.) 3–4 t.p.d. 3–4 Gm. (45–60 grn.) p.d.

BENZOSOL = Guaiacol Benzoate

BENZOSULPHINIDE—see Saccharin

Benzotrichloride—Technical

Toluene, Benzenyl, or Benzoic, Trichloride; Phenyl Chloroform.— $C_6H_5.CCl_3$ = 195.46.—Fr. boil'g toluene & Cl.—Clear, colorl. to yellowish, v. refract. liq.; fumes in air; character penetrat. odor.—SOL.: Eas. A., B., E.; insol. W.—Sp. Gr.: 1.38.—BOIL.: 222° C.—USES: Aniline dye industry, & organ. synthesis.

BENZOXYDIMETHYLAMINOMETHYLDIMETHYLAMINO-BUTANE HYDROCHLORIDE—see Alypin

Benzoyl Chloride Merck—C.P.

$C_6H_5.CO.Cl$ = 140.54.—Colorl. liq.—SOL.: B., E., CS_2 , oils; diffic. W. & A.—BOIL.: Abt 197° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.01%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: In inorgan. anal. & synthesis f. introduc'g the benzoyl group into organ. comp'ds; also in testing f. alcohol (Berthelot), lysidin (Ladenburg), & polyvalent alcohols (Baumann).

do. Merck—Pure

$C_6H_5.CO.Cl$ = 140.54.—Fr. benzoic acid & PCl_5 .—Colorl. liq.; pung. odor.—SOL.: B., E., CS_2 , oils.—Sp. Gr.: 1.219.—BOIL.: Abt 197° C.—USES: *Medicin.*, by subcut. inj. in leprosy, & as nasal spray or paint f. ulcerating surfaces in petroleum-oil solut.—*Techn.*, manuf. dyes.

BENZOYL GREEN—see Malachite Green

BENZOYL HYDRIDE—see Benzaldehyde

BENZOYL OXIDE—see (Acid) Benzoic Anhydride

Benzoyl Peroxide Merck

Benzoyl Superoxide.— $C_6H_5.CO.O.O.CO.C_6H_5$ = 242.15.—Fr. $C_6H_5.CO.Cl$ & BaO_2 .—Wh., cryst. powd.; v. faint odor.—SOL.: A., E.; eas. C.; v. diffic. W.; abt 50 olive oil.—MELT.: 105° C.—ACTION: External Disinfect. & mild Anesthetic.—USES: Wounds, burns, skin dis., gonorrhea, varicose leg ulcers, etc.—*Techn.*, bleaching oils; & in tests f. formaldehyde (Golodetz) & cholesterol (Lifschütz); also as fixing agent in microscopy.—APPL.: Pure, or

2%–3% solut. in olive oil, or in 10% oint. or conc. solut. in olive oil.

BENZOYL SUPEROXIDE—see Benzoyl Peroxide

BENZOYLACETIC-ACID ETHYLESTER—see Ethyl Benzoylacetate

BENZOYLACETYL PEROXIDE—see Acetozone

BENZOYLAMINO-ETHOXYQUINOLINE—see Analgen

BENZOYLANILIDE—see Benzanilid

Benzoylcongonine

Benzoyltropincarboxylic Acid.— $C_{16}H_{19}NO_4 + 4H_2O$ = 361.30.—Fr. coca leaves; also by boil. cocaine w. W.—Snow-wh. lustr. cryst. need.—SOL.: stly cold, eas. hot, W.; dil. acids & alkalis; insol. E.—MELT.: 90°–92° C. when it cont. W. of cryst., & 193°–195° C. when anhydr.—USES: Not used therapeutically, although said to possess an action like that of caffeine; has no local anesth. properties.

BENZOYLECGONINE-ETHYLESTER—see Cocaethylene

BENZOYLETHYLDIMETHYLAMINOPROPANOL HYDROCHLORIDE—see Stovaine

Benzoeugenol

Benzoeugenol; Eugenol Benzoate.— $(CH_2.CH:CH_2)[1]. C_6H_3(O.CH_3)[3]. (O.CO.C_6H_5)[4]$ = 268.21.—Fr. eugenol, NaOH, & benzoyl chloride.—Colorl., odorl. cryst.—SOL.: Eas. B., C., E., hot A.; insol. W.—MELT.: 70° C.—ACTION: Antiseptic.—USES: Tuberculosis; neuralgic headaches.—DOSE: 0.5–1 Gm. (8–15 grn.).

BENZOYLGLYCIN—see Acid Hippuric

BENZOYLGUIAIACOL—see Guaiacol Benzoate

BENZOYLNAPHTHOL—see Betanaphthol Benzoate

Benzoylphenylhydrazine—Symmetric

$(C_6H_5)HN.NH.C_6H_5.CO$ = 212.18.—Fr. benzoyl chloride & phenylhydrazine.—Colorl. cryst.—SOL.: A., C., E.; diffic. W., E.—MELT.: 168° C.

BENZOYLPHLOROGLUCINDIMETHYLESTER—see Hydrocotoin

BENZOYL PSEUDOTROPEINE HYDROCHLORIDE—see Tropacocaine Hydrochloride

BENZOYLSALICIN—see Populin

BENZOYLSALICYLIC-ACID METHYLESTER—see Benzosalin

BENZOYLSULPHONIC IMIDE—see Saccharin

BENZOYLTETRAMETHYLDIAMINOETHYLISOPROPYL-ALCOHOL HYDROCHLORIDE—see Alypin

BENZOYL VINYDIACETONALKAMINE HYDROCHLORIDE—see Eucaine Hydrochloride

BENZOZONE—see Acetozone

Benzycin

Sodium Benzyl Succinate Merck.— $C_6H_5.CH_2OOC(CH_2)_2COONa$ = 230.14.—39.5% ben-

zyl radical.—Fine wh. powd.—**SOL.**: Freely & eas. (1:6) W. (solut. colorl., tastel., & neutral).—**ACTION**: Antispasmodic.—**USES**: Renal, biliary, uterine, & intest. colic; angiospasm, pylorospasm, asthma, high blood press., dysmenorrhea, persistent hiccough, & in general where a relaxant of *smooth* muscular tissue is desired. Adapted f. *intraven.* use, partic. where an immed. effect is desired (e.g., severe asthma), as also f. *intramusc.* or *subcut.* use (see also BENZYPHOS).—**DOSES**: *Intern.*, 0.3–1 Gm. (5–15 grn.) in powd., tablet, or aqu. solut.; *intramusc.*, 0.2–0.3 Gm. (3–5 grn.); *intraven.*, 0.12 Gm. (2 grn.).—**NOTE**: Failure to obtain the expected or desired therapeutic effects is usually due to insuff. dosage. It is advisable in such cases to repeat the dose at freq. intervals until the full therap. effect is obt'd. As Benzycin is comparatively nontoxic the dosage can be pushed with safety.

do. —Tablets, 5 Grains Each

BENZYL ALCOHOL—see Alcohol Benzylic

BENZYL BENZENE—see Diphenylmethane

Benzyl Benzoate Merck—98%–100%

$C_6H_5COO.C_6H_5CH_2 = 212.17$.—Colorl., oily, odorl. liq.; faint arom. odor; burn. taste.—Fr. benzaldehyde & alcoholic KOH.—**SOL.**: A. C. E.; insol. W., G.—**SP. GR.**: 1.083–1.12 at 25° C.—**BOIL.**: 340°–350° C., w. part decomp.—**MELT.**: 18°–20° C.—**ACTION**: Antispasm.—**USES**: *Intern.*, renal, biliary, uterine, & intest. colic, dysmenorrhea, bronchial spasm, & asthma.—*Extern.*, 25% solut. in castor oil, or as oint., in skin dis., etc.—*Techn.*, as solvent of cellulose acetate & nitrocellulose, & artif. musk; substitute f. camphor in celluloid & plastic pyroxylin comp'ds; perfume fixative; confectionery flavors & chewing gum.—**DOSE**: 0.3–0.5 cc, (5–8 M).

Benzyl Chloride Merck—C.P.

1.Chlortoluene.— $C_6H_5.CH_2Cl = 126.55$.—Fr. boil'g toluene & Cl.—Colorl., v. refract. liq.; rather unpleas. odor; irrit. to the eyes.—**SOL.**: Eas. A., C., E.; insol. W.—**SP. GR.**: Abt 1.103.—**BOIL.**: Abt 179° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Acid.....	None
Ionic Chloride.....	0.000%

USES: Chem., & techn. in manuf. benzyl alcohol & o. benzyl comp'ds, & in manuf. perfumes, & pharm. products.—**CAUT.**: Highly irrit. to eyes & air passages.

do. —Pure

DESCRIPT., **SOL.**, **SP. GR.**, etc.: As of preced.—**USES**: Manuf. intermediates, dyes, synthetic tannins, & artif. resins.

Benzyl Cyanide

Phenylacetic-acid Nitrile; Phenylacetoneitrile.— $C_6H_5.CH_2.CN = 117.11$.—Fr. garden cress & o. plants; also fr. benzyl chloride & KCN.—Clear, colorl., oily, liq.; arom. odor.—**SOL.**: A.—**SP. GR.**: 1.019.—**BOIL.**: 233° C.—**USES**: Organ. synthesis.

BENZYL DICHLORIDE—see Benzal Chloride

Benzyl Fumarate

Dibenzyl Fumarate.— $(C_6H_5CH_2COO.CH)_2 = 296.22$.—Wh., odorl., alm. tastel. cryst. solid.—**SOL.**: A., C., E., oils; alm. insol. W.—**MELT.**: Abt 59° C.—**ACTION** & **USES**: As of benzyl benzoate.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.).

Benzyl Iodide

$C_6H_5.CH_2I = 218.01$.—Fr. benzyl chloride by HI.—Colorl. cryst.; vapor causes tears.—**SOL.**: E., CS₂; sltly A.; insol. W.—**MELT.**: 24° C.—**USES**: Organ. synthesis.

Benzyl Succinate Merck

Dibenzyl Succinate.— $C_6H_5CH_2.OOC.CH_2.CH_2.COOCH_2.C_6H_5 = 298.23$.—Wh., or faintly yellowish-wh., odorl. cryst. powd.; alm. tastel.; permanent in air.—**SOL.**: A., B., C., E., oils; alm. insol. W.—**MELT.**: 45° C.—**ACTION**: Antispasmodic (partic. f. unstripped muscle).—**USES**: Biliary, uterine, & intest. colic; excessive intest. peristalsis, dysmenorrhea, hiccough, etc. (see also BENZYCIN & BENZYPHOS).—**DOSE**: 0.3–1 Gm. (5–15 grn.).

di-Benzyl Sulphide

$(CH_2.C_6H_5)_2S = 214.24$.—Fr. benzyl chloride & K₂S.—Colorl. plates.—**SOL.**: A., E.; insol. W.—**MELT.**: 49° C.—**USES**: Organ. synthesis.

Benzylamine

Aminomethylphen.— $C_6H_5.CH_2NH_2 = 107.12$.—Fr. benzonitrile or thiobenzamide by Zn & HCl.—Colorl. liq.; strongly alkaline react.—**MISC.**: A., E.—**SP. GR.**: 0.995 at 15° C.—**BOIL.**: 183° C.—**USES**: Organ. synthesis.

Benzylamine Hydrochloride

$C_6H_5.CH_2.NH_2.HCl = 143.58$.—Colorl. cryst.—**SOL.**: W.—**MELT.**: 246°–250° C. when slowly, 248° C. when rapidly, heated.

Benzylaniline

Benzylphenylamine.— $C_6H_5.CH_2NH(C_6H_5) = 183.18$.—Fr. benzyl chloride & aniline, or fr. thiobenzanilide by Zn & HCl.—Alm. colorl. prisms.—**SOL.**: A., E.; insol. W.—**MELT.**: Abt 33° C.—**BOIL.**: 293°–300° C.—**USES**: Organ. synthesis.

Benzylcarbamide

Benzylurea.— $NH_2.CO.NH.CH_2.C_6H_5 = 150.14$.—Fr. benzyl chloride & KCNO.—Colorl. cryst.—**SOL.**: Eas. A., alm. insol. cold, more eas. hot, W.—**MELT.**: 147° C.

BENZYLENE CHLORIDE } see Benzal Chloride
BENZYLIDENE CHLORIDE }

Benzylideneacetone

Benzalacetone; Acetocinnamone; Methylcinnamylketone; Methylstyrylketone.— $C_6H_5.CH:CH.CO.CH_3 = 146.13$.—Fr. calc. cinnamate & acetate by ignit'n.—Colorl. cryst.; cumarin odor.—**SOL.**: Eas. A., B., C., E.; sltly benzin.—**BOIL.**: 260°–262° C.—**MELT.**: 42° C.—**USES**: Organ. synthesis; manuf. fixative f. perfumes.

BENZYL MORPHINE HYDROCHLORIDE—see Peronin
BENZYLPHENOLCARBAMINIC-ACID ESTER—see Butolan

BENZYLPHENYLAMINE—see Benzylaniline

BENZYLUREA—see Benzylcarbamide

"BERBERINE"—see Berberine Carbonate

Benzophos

Sodium Dibenzyl Phosphate Merck.— $(C_6H_5CH_2)_2NaPO_4 = 300.22$.—Fine wh. powd.; sltly bitter but not unpleas. taste whixh is soon dissipated.—SOL.: v. eas. & clearly in W. (solut. neutral, & sterilizable by boil'g without decomp'n).—ACTION: Antispasmodic.—USES: As of BENZYCLIN (*q.v.*). Benzophos develops its effects more slowly than does Benzyclin, but they are more prolonged & persistent, hence the prep'n is of special use in reliev'g high blood press., uterine spasma, etc.—DOSE: *Intern.*, 0.5–1.3 Gm. ($7\frac{1}{2}$ –20 grn.) in powd., tablet, or solut; *intramusc.*, 0.25–0.5 Gm. (4 – $7\frac{1}{2}$ grn.); *intraven.*, 0.2 Gm. (3 grn.).—NOTE: Failure to obtain expected or desired therapeutic effects is usually due to insufficient dosage. It is advisable in such cases to repeat the dose at freq. intervals until the full therapeutic effect is obt'd. As Benzophos is comparatively nontoxic, the dose can be "pushed" with safety.

do. —Tablets, $7\frac{1}{2}$ Grains Each

Berberine Bisulphate Merck

So-called "Berberine Sulphate."— $C_{20}H_{17}NO_4 \cdot H_2SO_4 = 433.33$.—Yellow need.; obt. fr. hydrastis.—SOL.: Eas. boil., sltly cold, W.; alm. insol. A.—ACTION, USES, & DOSES: As of Berberine Sulphate.

Berberine Carbonate

"Berberine" (so-called).— $C_{20}H_{17}NO_4 \cdot H_2CO_3 + 5H_2O = 487.35$. Yellow cryst.—SOL.: Hot W., A.—USES, DOSES, etc.: As of berberine hydrochloride & sulphate.

Berberine Hydrochloride

$C_{20}H_{17}NO_4 \cdot HCl + 2H_2O = 407.74$. — Yellow cryst. powd.—SOL.: v. sltly cold (400, B.P.C.), eas. boil., W.—ACTION: Antiper.; Stomachic; Tonic.—USES: Specially in malarial splenic enlargement, gastroptosis, displaced kidney, prolapsed uterus, & gastric & intest. dilatation; often used in combin. w. quinine sulph. (berberine hydrochl. 2 parts, & quin. sulph. 1 part); amenor., anorexia, chronic intestinal catarrh, vomiting of pregnancy, &c.—DOSES: *Antiper.* 0.5–1 Gm. (8–15 grn.); *stomach. & ton.* 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) 3 t.p.d.; of mixt. w. quinine, 0.4 Gm. (7 grn.) ev. $\frac{1}{2}$ –1 hr.

Berberine Phosphate

$(C_{20}H_{17}NO_4)_3(H_3PO_4)_2 + 2H_2O = 1237.89$. — Yellow, cryst. powd.—SOL.: 15 W.—Most soluble salt of berberine.—USES: Powerful uterine contractor.—DOSE: As of sulphate; best given in solut. flavored w. orange or cinnamon syrup.—As uterine contr., 0.002 Gm. ($\frac{1}{30}$ grn.) subcut.

"BERBERINE SULPHATE"—see Berberine Bisulphate

Berberine Sulphate Merck—Soluble, Cryst.

$(C_{20}H_{17}NO_4)_2 \cdot H_2SO_4 = 796.59$. — Yellow need.—SOL.: Abt 100 W., A.—ACTION: Antiper;

Stomachic; Tonic.—USES: Malar., amenor., chron. catarrh; intest. catarrh, malarial splenic tumor; stomachic in chron. digestive disturb., & anorexia.—DOSES: *Antiper.*, 0.5–1 Gm. (8–15 grn.); *stom. & tonic*, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) 3 t.p.d.

BERBERIS—see Barberrry Bark

Berberis—N.F. V

Holly-leaved Barberrry; Oregon Grape Root; Mountain Grape.—Dried rhizome & roots of spec. of section of Mahonia De C. of the genus Berberis L., Berberideæ.—HABIT.: U. S., & British Columbia.—CONSTIT.: Berberine; berbamine; oxyacanthine; phytosterin; gum; sugar.—ACTION: Alterat.; Antiper.; Tonic; Diuret.—USES: Scrofula, skin dis., syphil., liver dis., malaria, typhoid fever, & chron. uter. affect.—DOSES: *Aver.*, 2 Gm. (30 grn.).—Alcoh. extr., 0.12–0.36 Gm. (2–6 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).

Berberis Aristata—B.P.

Indian Barberrry; Ruswut; Rusat.—Dried stem of Berberis aristata, D. C., Berberideæ.—HABIT.: India; Ceylon.—CONSTIT.: Berberine & o. alkaloidal substances, tannin, resin, gum, & starch.—ACTION: Bitter Tonic.—USES: Intermitt. fevers.—DOSE: Tr. (1:10) 2–4 cc. (30–60 M).—Conc. Solut. (1:2), 2–4 cc. (30–60 M).

BERLIN BLUE—see Iron Ferrocyanide

BERLIN BLUE, SOLUBLE—see Iron Ferrocyanide, Soluble

BERRY ALDER—see Frangula

BERTRAM—see Pyrethrum

Bertrand's Solution—Test for Alkaloids

A solut. of silicotungstic acid; affords insol. ppts with alkaloids. The sensitiveness may vary from 1:8000–1:500,000.

do. —Test f. Glucose (Dextrose)

(a) Cryst. $CuSO_4$ 40 Gm. + W. to make 1000 cc.—(b) Rochelle salt 200 Gm. + NaOH 150 Gm. + W. to make 1000 cc.—(c) *Acid Ferric Sulphate Solut.*: Ferric sulphate 50 Gm. + 200 cc. W., & pour solut. into a mixt. of 200 cc. conc. H_2SO_4 & 400 cc. W., then add W. to make 1000 cc.—(d) *KMnO₄ Solut.*: 5 Gm. $KMnO_4$ + W. to make 1000 cc. (this solut. should be standardized against a solut. of 0.25 Gm. $[NH_4]_2C_2O_4$ in 50–100 cc. W. + 1–2 cc. conc. H_2SO_4 by titrat'g to development of a rose color).—USES: Quant. determ. glucose (dextrose) in urine by reduct'n on boil'g, diss. pptd Cu_2O in ferric solut., & titrat'g w. $KMnO_4$.

Beryl—Mineral

OCCUR.: U. S.; Siberia; India; Brazil; Ireland; Scotland; France; Norway; Sweden.—COMPOS.: $(SiO_3)_3Al_2Be_3$.—CRYST. SYST.: Hexag.—LUSTER: Vitr.—COLOR: Shades of green & blue; also yellow, wh., & colorl.—STREAK: Wh.—FRACT.: Conch. to uneven.—HARDN.: 7.5–8.—SP. GR.: 2.63–2.80; us'y 2.69–2.70.—USES: Prep. Beryl ores; beautiful, clear, varieties colored by chrome, as precious stones.

BERYLLIUM (AND SALTS)—see under Glucinum

BETACAINE—see under Eucaine

BETACYMOPHENOL—see Carvacrol

BETADIAMINOTOLUENE HYDROCHLORIDE—see *o*-Toluylenediamine Hydrochloride

BETADIBROMETHANE—see Ethylene Bromide

BETADIBROMNAPHTHALENE—see β -Dibromnaphthalene

BETADICHLORETHANE—see Ethylene Chloride

BETADINITRONAPHTHALENE—see β -Dinitronaphthalene

BETADINITROPHENOL—see β -Dinitrophenol

BETAEUCAINE—see under Eucaine

BETAETHYLPYRIDINE—see β -Lutidine

BETAHYDROXYOCTANE—see Alcohol Caprylic, Normal, Secondary

Betaine Hydrochloride

Trimethylglycine Hydrochloride; Oxyneurine, or Lysine, Hydrochloride; Acidol.— $\text{N}(\text{CH}_3)_3 \cdot \text{CH}_2 \cdot \text{CO}_2 \cdot \text{HCl} = 153.59$.—Fr. alkaloid found in sugar beet & *o.* plants; also synthet. fr. monochloroacetic acid & trimethylamine.—Colorl., monocl. tablets.—SOL.: 2 W., 20 A. (90%), & insol. C., E., B.P.C.—Credited w. power to completely neutralize tetanus toxin.—USES: Liberates HCl in stomach, hence used in gastric affect. like HCl, sometimes w. pepsin.—*Techn.*, as standard in titrating alkaloids.—DOSES: 0.4–0.8 Gm. (6–12 grn.) (= 4–8 drops of 25% HCl) in water; 0.06–0.3 Gm. (1–5 grn.), B.P.C.—*Subcut.* in tetanus, 0.2–0.5 Gm. (3–8 grn.) in 10% solut. 2 t.p.d.

BETAISOAMYLENE—see Amylene

BETAMETHYLETHYLPYRIDINE—see β -Collidine

BETAMETHYLINDOLE—see Skatol

BETAMETHYLPYRIDINE—see β -Picoline

BETAMONOCHLORNAPHTHALENE—see β -Chlor-naphthalene

BETAMONOHYDROXYNAPHTHALENE—see Betanaphthol

Betanaphthol Merck—U.S.P. X—Resublimed, Medicinal

Naphthol (B.P.); Isonaphthol; Betamono-hydroxynaphthalene.— $\text{C}_{10}\text{H}_7\text{OH} = 144.11$.—Fr. β -naphthalenesulphonic acid & KOH by heat.—Colorl. to very pale buff-colored laminae, or cryst. powd.; darkens w. age.—SOL.: 1000 W., 0.8 A., 17 C., 1.3 E., at 25° C., 80 boil. W., & also in G., olive oil, & alkali hydroxide soluts, U.S.P.; (abt 75 boil. W., & less than 2 A. [90%], B.P.; 24 C., 12 olive oil, & 40 G., Sq.).—MELT.: 120°–122° C.—BOIL.: 285°–286° C.—ACTION: Antisept.; Germicide; Anthelmintic; Parasiticide. Stronger than phenol & less toxic.—USES: *Intern.*, in typhoid condit. of intest., & chronic diar.; enteric fever, summer diar. of infants; fermentative dyspepsia; also as vermifuge in ankylostomiasis.—*Extern.*, psoria., scabies, ecz., & chron. skin affect. in 2%–10% oint.—*Chem.*, testing f. allyl A. (Denigès; NO_3 & NO_2 (Hager; Piñerua), malic, citric, tartaric, chloric, & pyrouvic, acids (Piñerua). NO_2 (Riegler); also manuf. pharm. prep's.—

DOSE: 0.2–0.6 Gm. (3–10 grn.), aver. dose 0.25 Gm. (4 grn.); in ankylostomiasis, 1 Gm. (15 grn.) preceded & followed by a cathartic.—MAX. D.: Ordinarily, 0.6 Gm. (10 grn.) single; 1.3 Gm. (20 grn.) p.d.—VETER. MED., *intern.* in infectious dis. & as anthelmintic, *horses*, 5 Gm. (75 grn.); *dogs* 0.5 Gm. (8 grn.) p.d.; also *extern.* in chron. ecz., scabies, etc.—INCOMP.: Antipyrine, camphor, carbolic acid, exalgine, ferric chloride, menthol, potass. permanganate, urethane.—CAUT.: Keep fr. light.

Betanaphthol Benzoate Merck

Betanaphthyl Benzoate; Benzoylnaphthol; Benzonaphthol.— $\text{C}_{10}\text{H}_7 \cdot \text{C}_6\text{H}_5\text{CO}_2 = 248.18$.—Whitish, cryst. powd.; darkens w. age.—SOL.: Eas. in hot A., 33 C., alm. insol. W.—MELT.: 110° C.—ACTION: Intestinal Antiseptic (decomp. into its constituents in the intestines).—USES: Diarrh., dysent., typhoid fever, cholera, summer diarrh. of children, & all intest. inflam.; also in dentistry.—DOSE: 0.2–0.5 Gm. (3–8 grn.) sev'l t.p.d.; children, 0.1–0.2 Gm. (1½–3 grn.), & up to 2 Gm. (30 grn.) p. day.—MAX. D.; 1 Gm. (15 grn.) single, 4 Gm. (60 grn.) p.d.—VETER. MED., as intest. antisept. & diuretic, *dogs*, 0.5–2 Gm. (8–30 grn.) p. day.

Betanaphthol Camphorated

Naphthol Camphor; Naphtylated Camphor.—Mixt. of 1 betanaphthol & 2 camphor.—Syrupy liq.—SOL.; A.—ACTION: Antisept.; Resolv.—USES: With cocaine for local tuberc. affect., coryza, furuncles, diphtheritic angina, & loc. tuberc.; *intraparenchymatously* in pulmon. tuberc., cervical tuberc. adenitis, & lymphadenitis (0.15 Gm. [2½ grn.] = 0.05 Gm. [¾ grn.] betanaphthol) in oily solut.

Betanaphthol Lactate

Lactol.— $\text{CH}_3 \cdot \text{CHOHCOO} \cdot \text{C}_{10}\text{H}_7 = 216.16$.—Obtd by action of phosphorus oxychloride on betanaphthol sodium and sodium lactate.—Colorless cryst.—SOL.: A.; insol. E.—ACTION: Intest. Antisept.—DOSE: *Children*, 1 Gm. (15 grn.).

BETANAPHTHOL ORANGE—see Tropaeoline O O O No. 2

BETANAPHTHOL (or -YL) SALICYLATE—see Betol

BETANAPHTHOL-SODIUM—see Microcidin

BETANAPHTHOLBISMUTH—see Bismuth Betanaphthol

BETANAPHTHOQUINONE—see β -Naphthoquinone

BETANAPHTHYL BENZOATE—see Betanaphthol Benzoate

BETANAPHTHYLAMINE—see β -Naphthylamine

BETANAPHTHYLETHYLESTER—see Bromelia

BETANAPHTHYLMETHYLESTER—see Nerolin

BETAOXYBUTYRALDEHYDE—see Acetaldo

BETAPARVOLINE—see β -Parvoline

BETAPYRIDYL-ALPHA-*n*-METHYLPYRROLIDIN—see Nicotine

BETAQUININE—see Quinidine

Betel—B.P.

Dried lvs of Piper Betle, L., Piperaceæ.—**HABIT.:** India, Ceylon, Malay Archipelago.—**CONSTIT.:** Volat. oil (0.2%–1%); chavibetol; chavicol; cadinene.—**ACTION:** Antisep.; Stim.; Carminative.—**USES:** Chiefly as a masticatory.

BETEL NUTS—see Areca Nuts

BETH ROOT—see Trillium

Betol

Naphthalol; Naphthosalol; Salinaphthol; Betanaphthol (or -yl), or Naphthyl, Salicylate.— $C_6H_4.OH.CO.O.C_{10}H_7 = 264.18$.—**Fr.** betanaphthol sodium, sodium salicylate, & $POCl_3$.—**Wh.**, cryst., odorl., tastel. powd.—**SOL.:** Sltly cold, 3 boil., A. (90%); in E., B.; insol. W. G.—**MELT.:** 93°–95° C., B.P.C.; N.N.R.—**ACTION:** Internal Antisep.; Antizymotic; Antirheum.—**USES:** Putrid processes of intest. tract, vesical catarrh; also gastr. catarrh & acute artic. rheum. Decomp. in intest. into salicylic acid & betanaphthol.—**DOSE:** 0.25–0.5 Gm. (4–8 grn.) sev'l t.p.d.—**MAX. D.:** 2 Gm. (30 grn.) single, 10 Gm. (150 grn.) p.d. (Kobert).

BETONICA—see Betony

Betony—Fr. Cod.

Wood Betony; Bishop's-wort; Wild Hop; Betonica.—Lvs of Betonica officinalis, L., Labiateæ.—**HABIT.:** Southern Europe; U. S.—**CONSTIT.:** Bitter principle; tannin.—**USES:** Sternutatory; poultice f. wounds.

Bettendorf's Solution—Test for As

10 cc. freshly prepared, sat. solut. stannous chloride w. 5 cc. conc. HCl (sp. gr. 1.170–1.184).—Even traces of As afford w. the solut. a brown color or ppt. in the cold or on warming.

Betula

European White Birch.—Bark & lvs of Betula alba, L., Betulaceæ, (Cupuliferæ).—**HABIT.:** Europe & Northern Asia; also America, north of Pennsylvania.—**CONSTIT.:** Betulin (betula camphor) 10%–12%; betuloresinic acid.—**ACTION & USES:** The astring. inner bark is used as antipyr. in intermit. fever; external whitish bark source of empyreum. oil birch (Ol. Rusci). Lvs are diuret.—**DOSE:** Lvs & Bk 25–35 Gm. (abt 6–9 dr.) in infus. w. hot W., per day.—**Aqu. extr.**, 1–2 Gm. (15–30 grn.) diss. in abt 100 cc. ($3\frac{1}{2}$ fld. oz.) W. & taken during 24 hrs.

Bial's Solution—Test for Pentoses

1 Gm. orcin, 500 cc. HCl (30%), & 25 drops solut. $FeCl_3$ (10%).—Boil 4 cc. solut., & add 1 cc. (not more) of the urine—if pentose present, a green color develops at once or soon.

BIBIRINB—see Bebeerine

BIBIRU BARK—see Bebeeru Bark

BICALCIC PHOSPHATE—see Calcium Phosphate, Dibasic

BICOLORIN—see Esculin

Biebrich Scarlet

Ponceau.—Sod. salt of aminoazobenzenedisulphonic acid-azobetanaphthol.—Reddish-brown powd.—**SOL.:** W. w. yellowish-red color.—

USES: As a coloring & for dyeing wool scarlet in acid bath.—**NOTE:** This article is *not* adapted for medicinal use; for this purpose only the Biebrich Scarlet R, Medicinal, should be employed.

Biebrich Scarlet R Merck—Medicinal

Fat Ponceau R.; Toluylazotoluylazobetanaphthol; Aminoazotolueneazobetanaphthol; Scarlet R Biebrich.— $CH_3C_6H_4N:N.C_6H_3.CH_3-N:N.C_{10}H_5.OH = 379.30$.—Dark brownish-red powd.—**SOL.:** Eas. (15) C., oils, fats, phenol; sltly B., acetone, & cold A., but somewhat more sol. hot A.; quite sol. warm petrolatum & paraffin; alm. insol. W.—**MELT.:** 181°–188° C., but softens at 175° C. Decomp'd at 260° C.—**ACTION:** Promotes epithelial formation & granulation.—**USES:** Chiefly *extern.*, in burns, wounds, chron. ulcers, serpent corneal ulcer, corneal wounds, syphilitic ulcers, ozena, & injuries complicated by loss of considerable areas of skin, in 4%–10% oint.—Also *intern.* in gastric & duodenal ulcer.—**DOSE:** 0.5 Gm. (8 grn.) 3–4 t.p.d., before meals.—**VETER. MED.**, wounds, eczema, sores.

BIKHROOT—see Aconitum Ferox

BILIFULVIN—see Bilirubin

Bilifuscin

Bile-pigment.— $C_{16}H_{20}N_2O_4 = 304.26$. (?)—Dark-brown powd.—**SOL.:** A., alkali hydroxides, glacial acetic acid; alm. insol. W., E., C.

Bilihumin

Bile-pigment.—Dark-brown, amorphous powd.—**SOL.:** Alkali soluts.

BILINEURINE—see Choline

BILIPHAEN—see Bilirubin

Biliprasin

Bile-pigment.—Prob'ly mixt. of bilifuscin & biliverdin.—Greenish-black powd.—**SOL.:** A.; insol. W., E., C.

Bilirubin

Biliphaen; Bilifulvin; Cholepyrrhin; Hematoidin.—Prin. pigment of bile, & constit. of many biliary calculi.— $(C_{16}H_{18}N_2O_3)_x$.—Orange-red powd.—**SOL.:** C., B., CS_2 , acids & alkali; v. sltly A., E.; insol. W.—**MELT.:** 192°–192.8° C.

Biliverdin

Bile-pigment; oxid'n product of bilirubin.— $(C_8H_9NO)_x$.—Dark-green, amorph. powd.—**SOL.:** A., methyl A., glacial acetic acid, conc. H_2SO_4 , caust. alkalies, B., CS_2 ; sltly E.; insol. W.

Biondi-Heidenhain's Triacid Mixture

This is a mixture of saturated aqueous soluts of Fuchsine S, Orange G, and Methyl Green in the proportions of 2:10:5.—**USES:** For staining sections.

Biotite—Mineral

Mica; Magnesiaglimmer.—**OCCUR.:** U. S.; Brazil; India; Transylvania; Alps.—**COMPOS.:** $(SiO_4)_3(Al, Fe)_2(Mg, Fe)_2(K, H)_2$.—**CRYST. SYST.:** Monosym.—**LUSTER:** Pearly on cleavage face; otherwise vitreous; submetal when black.

—COLOR: Green to black, rarely dark green.—STREAK: Uncolored. Transparent to opaque. Very thin cleavage lamella are flexible & elastic except when hydrated, when they are brittle.—HARDN.: 2.5–3.—SP. GR.: 2.7–3.1.—USES: Instead of glass in optical instruments, furnaces, safety goggles; insulat'g agent in electrical industry.

BIRCH, WHITE, EUROPEAN—see Betula

BIRD PEPPER—see Capsicum

BIRD'S EYE—see Adonis Vernalis

BIRTHROOT—see Trillium

BIRTHWORT—see Serpentaria

BISH, or BISHMA—see Aconitum Ferox

BISHOP'S-WORT—see Betony

Bismarck Brown

Vesuvine; Manchester, English, Gold, Phenylene, Cinnamon, or Aniline, Brown.—Metaphenylenediamine - disazobimetaphenylenediamine Hydrochloride.—Dark-brown powd.—SOL.: W.—USES: Dyeing silk & wool; leather & cotton, when tanned, reddish-brown. Bacteriol., as contrast color. w. methyl violet.—CAUT.: Preserve solut. in dist. W. by adding a small piece of camphor.

BISMARCK BROWN B—see Vesuvine B

Bismarsen

Sulpharsphenamine Bismuth; Bismuth Arsphenamine Sulphonate.—Brownish - yellow, amorph. powd.; cont. approx. 13% As & 24% Bi.—SOL.: Eas. W. (solut. yellow).—ACTION: Antisyphil.—USES: Syphilis.—DOSE: 0.1 Gm. (1½ grn.) initial, then 0.2 Gm. (3 grn.) diss. in 1 cc. (15 M) sterile W. by intramusc. inj., once to twice weekly f. 20 doses.

Bismon

Colloidal Bismuth Oxide.—Light-brown, gran. substage; abt 20% Bi.—SOL.: W., form'g a fairly stable opalesc. suspens.—ACTION: Intest. Astring.—USES: As of bism. subnit. in acute & chron. intest. & digestive disturbances (partic. in infants & young childr.).—DOSE: Adults, 0.5 Gm. (8 grn.) in 5%–10% aqu. suspens. w. milk, 3–4 t.p.d.

Bismosol

A sterilized solut. of Potassium Sodium Bismuthotartrate in aq. solut. glucose; ea. cc. (15 M) contains potass. sod. bismuthotartrate corresponding to 0.035% Bi.—Pale yellow, syrupy liq.; us'ly mkt'd in 1 cc. ampuls.—USES: Syphil.—DOSE: *Intramusc.* 1 cc. (15 M) ev. 2–7 days until 20 inj. have been given. After an intermission of 1 month, a second course may be given.

Bismuth Merck—C.P.

Bi = 209; described by Agricola in 1530, but accurate knowledge regarding properties & reactions given by Pott & Bergmann in 1739.—Grayish-wh., hard & brittle pieces, w. reddish tinge & bright metal luster, or steel-gray powd.—SOL.: Aqua regia, HNO₃, & hot H₂SO₄.—SP. GR.: 9.75.—MELT.: 271° C.—BOIL.: 1420° C.

MAXIMUM OF IMPURITIES

Antimony.....	0.00%
Arsenic (As).....	0.000%
Copper (Cu).....	0.005%
Iron (Fe).....	0.008%
Lead (Pb).....	0.010%
Silver (Ag).....	0.010%
Zinc (Zn).....	0.003%
Sulphur (S).....	0.01%

do. Merck—99%–100%

DESCRIPT., PROPERTIES, & C: As of the preced'g.—USES: Dental techn., manuf. fusible alloys, stereotype metal, fusible boiler plugs, electric fuses, low-melting solders, & colors f. porcelain & china; tempering baths f. steel; silvering mirrors.

Bismuth Acetate—Basic

Bismuth Subacetate.—Approx. BiO.CH₃.COO = 284.03.—Wh. powd.; cont. abt 80%–82% Bi₂O₃.—SOL.: Glac. acetic acid, dil. HCl., dil. HNO₃; insol. W., A.

BISMUTH ARSPHENAMINE SULPHONATE—see Bismarsen

Bismuth Benzoate Merck

Bi(C₇H₅O₂)₃ = 572.23.—Wh. powd.—SOL.: Dil. HCl & HNO₃ w. separ. of benzoic acid; insol. W., E.—ACTION: Antisep.—USES: *Intern.*, diarrh. & gastro-intest. dis.—*Extern.*, like iodoform on wounds, &c.—DOSE: 0.3–1 Gm. (5–15 grn.).

BISMUTH BENZOATE, BASIC—see Bismuth Subbenzoate

Bismuth Betanaphthol Merck—U.S.P. IX

Basic Betanaphtholbismuth; Bismuth Naphtholate (B.P.C.).—Bi₂O₃(OH).C₁₀H₇O = 610.11.—Brownish or grayish, odorl., tastel., amorph. powd.; darkens somewh. in time; 73%–78% Bi₂O₃.—SOL.: Part. in mineral acids; alm. insol. W., A., C.—ACTION: Antisep., like salol.—USES: *Intern.*, diar. of pulm. tuberc. & in intest. ferment'n; gastritis, dysent., & diarrh.—*Extern.*, as dust'g powd. f. wounds.—DOSE: 0.5–1 Gm. (8–15 grn.) 3 t.p.d.; half these doses f. childr. In tuberc. diar. 4–8 Gm. (60–120 grn.) p.d.

Bismuth Bromide

Bismuth Tribromide.—BiBr₃ = 448.76.—Yellow, cryst. powd.—SOL.: In 10% soluts KI, KBr, & KCl; eas. dil. HCl; decomp. by W. w. formation of BiOBr.—USES: Rarely medicinally (see Bismuth Oxybromide).—In VETER. MED. in gastric & nervous distemper of dogs, 0.5 Gm. (8 grn.) 3 t.p.d.

BISMUTH BROMIDE, BASIC—see Bismuth Oxybromide

Bismuth Carbolate

Bismuth Phenate or Phenylate; Phenol-Bismuth.—Bi(OH)₂.C₆H₅O = 336.09.—Gray, almost odorl. & tastel. powd.; 80% Bi₂O₃.—Insol. W., A.; decomp. by HCl, & HNO₃, B.P.C.—ACTION: Antisep.—USES: *Intern.*, acute & chron. intest. catarrhs, & fermentative diarrheas;

Asiatic cholera; gastric dis.—*Extern.*, like iodoform as dust'g powd. f. wounds & skin dis., & also as enema in acute proctitis.—*Dose*: 0.3–1 Gm. (5–15 grn.); 1–3 Gm. (15–45 grn.) p.d.

BISMUTH CARBONATE—see Bismuth Subcarbonate

Bismuth Chloride Merck—C.P.—Cryst.

Bismuth Trichloride.— $\text{BiCl}_3 = 315.38$.—Wh., or yellowish-wh., hygrosc. cryst. or crystal. masses; volat. by heat.—*SOL.*: HNO_3 , acetone; eas. dil. HCl ; also sol. in absol. A.; decomp. by W. or hydrated A.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.035%
Arsenic (As)	0.0015%
Copper (Cu)	0.010%
Lead (Pb)	0.000%

CAUT.: Keep dry.

do. —Sublimed

Wh., v. hygrosc., cryst. powd.—*SOL.*, &c.: As of the preced'g.

BISMUTH CHLORIDE, BASIC—see Bismuth Oxychloride

Bismuth Chromate

$\text{Bi}_2\text{O}_3 \cdot 2\text{CrO}_3 = 666.00$.—Orange-red, amorph. powd.—*SOL.*: Acids; insol. W.—*USES*: Pigment.

Bismuth Citrate Merck—U.S.P. VIII

$\text{BiC}_6\text{H}_5\text{O}_7 = 398.07$.—Wh., odorl., tastel. powd.; 56%–58% Bi_2O_3 .—*SOL.*: Amm., solut. of alkali citrates; insol. W., A.—*ACTION*: Stomachic & Astring.—*USES*: As of the subnitrate, in diar., dyspep., &c.; also extern. like iodoform.—*Dose*: 0.12–0.3 Gm. (2–5 grn.); aver. dose, 0.12 Gm. (2 grn.).—*CAUT.*: Keep dry & protected fr. light.

BISMUTH DI(BI)TANNATE—see Tannismuth

BISMUTH EMETINE IODIDE—see Emetine Bismuth Iodide

Bismuth Formic-Iodide

Mixt. of formaldehyde-gelatin, thymol iodide, & bismuth subiodide.—*ACTION*: Surg. Antisep.; Astring.; Alter.; Analg.—*USES*: As stim. dry dress. to wounds, ulcers, & in skin dis.

BISMUTH GALLATE, BASIC—see Bismuth Subgallate

BISMUTH GLANCE—see Bismuthinite

BISMUTH GLYCERINOPHOSPHATE—see Bismuth Glycerophosphate

Bismuth Glycerophosphate

Bismuth Glycerinophosphate.—Wh. powd.; 65% Bi_2O_3 .—*Insol.* W.—*USES*: Gastric & intest. affections, dyspep., diarrh., dysentery, cholera, cardialgia, acidosis, etc.—*Dose*: 0.5–1 Gm. ($7\frac{1}{2}$ –15 grn.) 3–4 t.p.d.

BISMUTH HYDRATE—see Bismuth Hydroxide

Bismuth Hydroxide Merck—C.P.

"Bismuth Oxide Hydrated"; Bismuth Hydrate, Oxyhydrate, or Trihydrate.— $\text{Bi}(\text{OH})_3 = 260.02$.—Wh. or yellowish-wh., amorph., powd.—*SOL.*: Acids; insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.020%
Sulphate (SO_3)	0.020%
Alkali & Earths	0.30%
Arsenic (As)	0.00075%
Copper (Cu)	0.005%
Lead (Pb)	0.00%
Silver (Ag)	0.003%

USES: With a soluble iodide as an indicator in titrating alkalies & carbonates.

do. —B.P.C.

$\text{BiOOH} = 242.01$.—Fr. a solut. of bism. nitrate in dil. HNO_3 by pouring into NH_4OH .—Wh., amorph., odorl., tastel. powd.—*SOL.*: Acids, & in a mixt. G. & solut. NaOH ; insol. W.—*ACTION* & *USES*: As of bism. subcarb.—*Dose*: 0.3–1.3 Gm. (5–20 grn.).—*Extern.*, in 1:8 oint.

Bismuth Iodate

$\text{Bi}(\text{IO}_3)_3 = 733.76$.—Wh. powd.—*SOL.*: v. sltly in HNO_3 ; insol. W. & acetic acid.

Bismuth Iodide Merck

Bismuth Triiodide.— $\text{BiI}_3 = 589.76$.—Heavy, black powd.—*SOL.*: Compl. & clearly in HCl , & in 10% solut. KI .—*USES*: Syphil. by intraven. inj. (the subcut. inj. is too painful).—*Dose*: 0.025 Gm. ($\frac{5}{12}$ grn.) w. 0.25 Gm. (4 grn.) KI diss. in 1 cc. (15 M) W.—Is not given internally.

BISMUTH IODIDE, BASIC—see Bismuth Oxyiodide

BISMUTH IODOSUBGALLATE—see Airol

Bismuth Lactate Merck

Bismuth Sublactate.—Somewhat variable composition.—Wh. powd.—*SOL.*: v. sltly in W.—*ACTION*: Alternative; Antispasmodic.—*USES*: As of bism. subnitrate.—*Dose*: 0.3–1 Gm. (5–15 grn.).

Bismuth "Lactophosphate"

Bismuth phosphate w. bism. lactate; cont's abt 50% Bi.—Wh., micro-cryst. powd.—*SOL.*: v. sltly W.

BISMUTH, MAGISTERY OF—see Bismuth Subnitrate

BISMUTH METHOXYHYDROXYBENZOATE, BASIC—see Mesurol

BISMUTH NAPHTHOLATE—see Bismuth Betanaphthol

Bismuth Nitrate Merck—C.P.—Cryst.

Bismuth Ternitrate, or Trinitrate.— $\text{Bi}(\text{NO}_3)_3 + 5\text{H}_2\text{O} = 485.10$.—Lustr. clear, colorl., somewhat hygrosc. cryst.; acid taste.—*SOL.*: Acids,

G., small quant. W.; decomp. by much W. into subnitrate; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.010%
Alkalies & Earths.....	0.10%
Arsenic (As).....	0.000%
Copper (Cu).....	0.002%
Lead (Pb).....	0.00%
Silver (Ag).....	0.001%

USES: *Chem.*, detect'g Na, Cs, & Rb; reagent f. adenin.

do. Merck—Cryst.

DESCRIPT., & C.: As of the preced'g.—ACTION: Astring. & Antisep.—USES: *Intern.*, in diar. of phthisis, in gastralgia, & cholera, &c.; *extern.*, chapped hands (1%–4% in glyc.); also techn.—DOSE: 0.15–0.3 Gm. (2½–5 grn.) 3–4 t.p.d.; 0.3–0.6 Gm. (5–10 grn.) (B.P.C.).

Bismuth Oleate Merck

Fr. Bi₂O₃ & oleic acid.—Yellowish, granular mass.—SOL.: E.—ACTION: Emollient; Astringent.—USES: *Extern.*, as dust'g powd. (w. zinc oxide & starch) in cutaneous hyperemia, as oint. in exanthemata, &c.

Bismuth Oxalate Merck

Bi₄(C₂O₄)₆ + 15H₂O = 1634.30.—Wh., gran. powd.—SOL.: Dil. HCl; insol. W., A.

BISMUTH OXIDE—see Bismuth Trioxide

BISMUTH OXIDE, COLLOIDAL—see Bismon

BISMUTH OXIDE, HYDRATED—see Bismuth Hydroxide

Bismuth Oxybromide

Basic Bismuth Bromide; Bismuthyl Bromide.—BiOBr = 304.92.—Alm. wh. powd.—SOL.: Dil. HCl, & HNO₃; insol. W., A.—USES: Nerv. dyspep., hysteria w. gastric pains & vomiting.—DOSE: 0.3–0.4 Gm. (5–7 grn.) sev'l t.p.d.—VETER. MED., in gastric nervous distemper in dogs, 0.5 Gm. (8 grn.) 3 t.p.d.

BISMUTH OXYCARBONATE—see Bismuth Subcarbonate

Bismuth Oxychloride Merck—C.P.

Basic Bismuth Chloride; Bismuth Subchloride; Bismuthyl Chloride.—BiOCl = 260.46.—Fine, wh. powd.—SOL.: Dil. HCl; sltly H₂SO₄, HNO₃; insol. W., A.

MAXIMUM OF IMPURITIES

Nitrate (N ₂ O ₅).....	0.020%
Sulphate (SO ₃).....	0.020%
Arsenic (As).....	0.00075%
Copper (Cu).....	0.005%
Lead (Pb).....	0.00%
Silver (Ag).....	0.003%

USES: *Intern.*, in gastric & intest. affections; also as contrast substce in roentgenology.—*Extern.*, in skin dis. (e.g. chloasma) & hemorrhoids, in 6%–10% oints, or suppositories (0.6 Gm. [10 grn.] ea.); also in face powders.—DOSE: 0.3–1 Gm. (5–15 grn.); in roentgenology 60 Gm. (2 oz.) in a broth made fr. bread & milk.

do. —Powd.

Pearl White; Blanc d'Espagne; Blanc de Perle.

—DESCRIPTION, SOL.; etc., as above. USES: *Techn.*, as pigment; manuf. artif. pearls, &c.

BISMUTH OXYHYDRATE—see Bismuth Hydroxide

Bismuth Oxyiodide Merck

Bismuth "Subiodide"; Basic Bismuth Iodide.—BiOI = 351.92.—Brick-red powd.—Insol. W., A., C.; decomp. by acids & alkalies.—ACTION: Antisep.—USES: *Intern.*, gastric ulc., typh. fever, & dis. of gastrointestinal muc. membranes.—*Extern.*, dust'g on suppurat. wounds, piles, ulc., & skin dis.; 1% suspens. as inj. in gonorr.—DOSE: 0.1–0.3 Gm. (1½–5 grn.) 3 t.p.d., in mixt., powd., or gel. caps.—VETER. MED., *intern.* as intest. antisep. f. dogs, 0.5–1 Gm. (8–15 grn.); & *extern.* on wounds.—CAUT.: Keep fr. light.

BISMUTH OXYIODOGALLATE—see Airoil

BISMUTH OXYIODOTANNATE—see Ibit

BISMUTH OXYNITRATE—see Bismuth Subnitrate

Bismuth Oxyquinolate Merck

Bi(OH)₂C₉H₆N₂O = 387.12.—Deep yellow, amorph., alm. odorl. & tastel. powd.; abt 60% Bi₂O₃ & abt 40% oxyquinoline.—SOL.: Acids w. decomp'n; insol. W., A., E.—ACTION: Antiseptic.—USES: As of thymol iodide or iodof. on wounds, & also in skin diseases.

BISMUTH OXYSALICYLATE, BASIC—see Bismuth Subsalicylate

Bismuth Peptonized

Bismuthated Peptone.—Grayish-yellow, soluble bismuth comp.—USES: Dyspep., gastralgia, &c.—ACTION: Stomachic.—DOSE: 2–5 Gm. (30–75 grn.) 2 or 3 t.p.d.

Bismuth Permanganate

Bi(MnO₄)₃ = 565.79.—Black powd.—SOL.: Dil. acids.—ACTION: Antisep.—USES: *Extern.*, dusting powder for wounds & ulc.

Bismuth Peroxide Merck

Bismuth Tetroxide.—Bi₂O₄ = 482.00.—Fr. Bi₂O₃ by oxid'n.—Heavy, yellowish-brown powd.—SOL.: Acids; insol. W.—USES: Detect'g Mn.

BISMUTH PHENATE—see Bismuth Carbolate

BISMUTH PHENOLSULFONATE—see Bismuth Sulphocarbolate

BISMUTH PHENYLATE—see Bismuth Carbolate

Bismuth Phosphate Merck

BiPO₄ = 304.04.—Wh. powd.—SOL.: HCl, HNO₃; insol. W., A.—USES: As of bism. subnitrate, in diarrh. & cholera.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

do. —Soluble

Bismuth-sodium pyrophosphate, contain'g abt 20% Bi₂O₃.—Wh. powd.—SOL.: Abt 2 W.—ACTION: Intest. Antisep. & Astring.—USES: Acute diarrh., intest. tubercul., typhoid dysent., gastr. colic, & infant. diarrh.—DOSE: 0.2–

0.5 Gm. (3–8 grn.) 3 t.p.d.; children, 0.05–0.15 Gm. ($\frac{3}{4}$ – $2\frac{1}{2}$ grn.) sev'l t.p.d.

Bismuth Propionate

$\text{BiO} \cdot \text{C}_2\text{H}_5\text{COO} = 298.06$.—Wh. powd.; faint odor of propionic acid.—SOL.: Eas. dil. HCl; insol. W., A.

Bismuth Pyrogallate—Basic

Helcosol. — $\text{BiC}_6\text{H}_3\text{O}_3 = 332.05$. — Yellow, amorph., odorl., tastel.; powd.; 66%–70% Bi_2O_3 .—SOL.: Acid & alkaline soluts; insol. W., A.—ACTION: Intern. & Extern. Antisep.—USES: Intern., as intest. antisep. like salol.—Extern., in skin dis., &c., like bism. subgall.—DOSE: 0.3–1 Gm. (5–15 grn.).—APPL.: As of bism. subgallate.

BISMUTH, RESORCIN—see Bismuth Resorcinated

Bismuth Resorcinated Merck

Resorcín., or Resorcínol., bismuth.—Fr. Bi_2O_3 & resorcínol; compos'n variable.—Yellowish-brown powd.; abt 40% Bi_2O_3 .—Insol. W.—USES: Acute & chron. gastr. catarrh, & abnorm. gastric ferment. processes.—DOSE: 0.2–0.5 Gm. (3–8 grn.) sev'l t.p.d.

BISMUTH, RESORCINOL—see Bismuth Resorcinated

Bismuth Salicylate Merck—Acid—40% Bi_2O_3 —(Do not confound with Bismuth Salicylate Basic [Bism. Subsalicylate])

Approx. $\text{Bi}(\text{C}_6\text{H}_5\text{OH} \cdot \text{COO})_3 = 623.25$.—Wh., odorl. powd.—Decomp. by W. into basic salt & free salicylic acid.—ACTION: Intest. Astring. & Antisep.—USES: Dyspep., catarrh, enteritis, cyst., & dis. of alimentary canal.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

BISMUTH SALICYLATE, BASIC—see Bismuth Subsalicylate

BISMUTH SUBACETATE—see Bismuth Acetate

Bismuth Subbenzoate Merck

Basic Bismuth Benzoate.— $\text{C}_6\text{H}_5\text{COO} \cdot \text{BiO} = 346.08$.—Wh. powd.; abt 65% Bi_2O_3 .—Insol. W.—ACTION: Antisep. like iodoform.—USES: Intern., inst. of bism. subsalicylate in diarrh., & gastrointest. disturbances.—Extern., as dust. powd. for syph. ulc., wounds, skin dis., &c.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.

Bismuth Subcarbonate Merck—C.P.

Approx.: $([\text{BiO}]_2\text{CO}_3)_2 \cdot \text{H}_2\text{O} = 1038.03$.—Wh. or yellowish-wh. odorl., tastel. powd.—SOL.: HCl, HNO₃; insol. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.020%
Nitrate (N_2O_5)	0.050%
Sulphate (SO_3)	0.015%
Alkalies & Earths.	0.300%
Arsenic (As)	0.001%
Copper (Cu)	0.005%
Iron (Fe)	0.006%
Lead (Pb)	0.00%
Silver (Ag)	0.000%

do. Merck—U.S.P. X

Bismuth Carbonate or Oxycarbonate (B.P.); Basic Bismuth Carbonate.—Variable compos'n;

approx. $([\text{BiO}]_2\text{CO}_3)_2 \cdot \text{H}_2\text{O} = 1038.03$, U.S.P., B.P.—Not less than 90% Bi_2O_3 , U.S.P.—Wh. or pale yellowish-wh., odorl., tastel. powd.—SOL.: HCl, HNO₃; insol. W., A.—ACTION: Stomachic; Astring., &c.—USES: Intern., diar., vomit., dyspepsia, pyrosis, & dis'd condit'ns of alim. canal w. gastralgia.—Extern., as inj. into fistulas; face powd.—DOSE: 0.3–2 Gm. (5–30 grn.) 2–3 t.p.d.; aver. dose 0.5 Gm. (8 grn.).—Children, 0.1–0.6 Gm. ($1\frac{1}{2}$ –10 grn.) 2–3 t.p.d.—As inj. into fistulas 4 Gm. (60 grn.) in 6 Gm. (150 grn.) petrolatum.

do. Merck—For X-Ray Diagnosis, Free fr. Acids

Particularly adapted & advocated f. use in X-ray diagnosis of gastrointest. canal in doses of 20–32 Gm. (6–8 dr.) in milk, gruel, etc.; in investig. cavities & distensions in bronchi, by insufflat's into tracheobronchial branch.

BISMUTH SUBCHLORIDE—see Bismuth Oxychloride

Bismuth Subgallate Merck—U.S.P. X

Dermatol; Basic Bismuth Gallate.— $\text{C}_6\text{H}_2(\text{OH})_3\text{COO} \cdot \text{Bi}(\text{OH})_2 = 412.09$; composition variable, U.S.P.—Odorl., tastel. bright-yellow powd.; 52%–57% Bi_2O_3 .—SOL.: Dil. alkalies; in hot mineral acids w. decomp.; insol. W., A., C., E.—ACTION: Antisep.; Astring.—USES: Intern., gastrointest. affect.; colliquative diar. of phth., diar. of typhoid, & o. profuse diar. of ulcerous colitis, dysent., & malaria.—Extern., dust. powd. alone or w. starch, 5%–10% paste, 10%–20% oint., or 10%–20% emuls. (w. collod. or glyc.) f. wounds; weep'g impetiginous ecz., herpes, pemphigus, sores, gonorrh., burns; as insuffl. following nasal galvanoplastic operations; corneal inflam.; on tampons & bandages in gynecol.—DOSE: 0.25–0.5 Gm. (4–8 grn.) sev'l t.p.d.; w. opium if pain; in severe cases of diar., 0.36 Gm. (6 grn.) 8 t.p.d., or 0.5 Gm. (8 grn.) 6 t.p.d.; 0.6–2 Gm. (10–30 grn.) U.S.D., B.P.C.; aver., 1 Gm. (15 grn.) U.S.P.—In VETER. MED., intern. in diar. in dogs, 0.1–1 Gm. ($1\frac{1}{2}$ –15 grn.), & calves, 1–2 Gm. (15–30 grn.); & extern. in secreting wounds, moist eczema, malleanders, external otitis, burns, etc.

BISMUTH "SUBIODIDE"—see Bismuth Oxyiodide

BISMUTH SUBLACTATE—see Bismuth Lactate

Bismuth Subnitrate Merck—C.P.

Basic bismuth nitrate; somewh. variable composition; cont. abt 80% Bi_2O_3 .—Wh. powd.—SOL.: HCl or HNO₃; also in mod. dil. H_2SO_4 ; insol. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.010%
Sulphates (SO_3)	0.030%
Alkali & Earths.	0.25%
Ammonium Comp'ds (NH_3)	0.003%
Arsenic (As)	0.00%
Copper (Cu)	0.005%
Lead (Pb)	0.00%
Silver (Ag)	0.001%

USES: Reag. f. albumin, & f. glucose (Almén; Behrendt; Böttger; Brücke; Dudley; Nylander), K (Campani; Carnot; Huyse; Pauly), alkaloids (Dragendorff; Fron; Kraut), & morphine (Flückiger).

do. Merck—U.S.P.

Bismuth Oxynitrate (B.P.); Magistery of Bismuth; Pearl, Flake, Spanish, Paint, or Bismuth, White.—Approx., $4\text{BiNO}_3(\text{OH})_2 \cdot \text{BiO}(\text{OH})$; compos'n variable, U.S.P.—Wh., heavy powd.; not less than 79% Bi_2O_3 , U.S.P.; 79%–82%, B.P.—Sol.: HCl, HNO_3 ; insol. W., A.—ACTION: Antisep.; Astring.—USES: *Intern.*, subacute gastritis, pyrosis, gastric carcinoma & ulcer, cardialgia, dyspepsia, gastralgia, irrit. condit. of intest., diar., dysent., amebic dysent., cholera, &c. Where toxic effects are feared due to pathological intestinal decomp'n processes, the prep. may be given in the following form: 20 Gm. bism. subnitrate, 70 Gm. liq. paraffin & 10 Gm. pure petrolatum.—*Extern.*, as dust'g powd, alone or w. talc, kaolin, etc., in acute & chronic moist ecz., herpes zoster, burns, ulcers, fissures, excoriat., gonorr., leucorr., &c.—*Techn.*, manuf. of bismuth flux for enamels; cosmetics.—DOSE: 0.3–1.6 Gm. (5–25 grn.) in powd., or w. liquids, but not in pill, sev'l t.p.d.; aver. dose 1 Gm. (15 grn.). In amebic dysent., large doses (up to 12 Gm. [3 dr.] susp. in W., ev. 3 hrs night & day in severe cases). Also in X-ray diagnosis, in doses of 15–30 Gm. ($\frac{1}{2}$ –1 oz.), but is prone to cause toxic symptoms sometimes; the subcarbonate is better adapted for this purpose.—APPL.: As dust-powd.; in aqu. (5–10:100) suspension in gonorr.; 1–3:25 oint. Should not be applied to large wound surfaces because of danger of toxic effects.—VETER. MED., in gastrointest. affect. & hyperemesis in dogs, & in diarrhea; doses, *horses*, 5–15 Gm. ($1\frac{1}{4}$ –4 dr.); *cattle*, 10–25 Gm. ($2\frac{1}{2}$ –6 dr.); *sheep & pigs*, 2–5 Gm. (30–75 grn.); *dogs*, 0.25–2 Gm. (4–30 grn.); also used extern.—ANTID.: Sacchar. ferric oxide; gastric lavage; castor oil; diuretics; pilocarpine subcut.—INCOMP.: Alkaline bicarbonates (in water); w. KI double decomp. slowly sets in; gallic acid; calomel; salicylic acid; tannin; sulphur.

do. —Cones

USES: As of the preced'g.

Bismuth Subsalcylate Merck—U.S.P, X

Basic Bismuth Salicylate, or Oxysalicylate (B.P.).— $\text{C}_6\text{H}_4(\text{OH}).\text{COO}.\text{Bi}(\text{OH})_2 = 380.09$.—Variable composition; 62%–66% Bi_2O_3 , U.S.P.; 62%–65%, B.P.—Wh., micro-cryst., odorl., tastel., powd.—Sol.: Acids & alkalis w. decomp.; insol. W., A., E.—ACTION: Extern. & Intest. Antisep. & Astring.—USES: *Intern.*, as of the subnitrate in phth. diar., summer complaint, typhoid, &c.—*Extern.*, like iodoform.—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver. dose 1 Gm. (15 grn.).—VETER. MED., *horses*, 10 Gm. (150 grn.); *dogs*, 0.5–1.5 Gm. (8–24 grn.).—NOTE: This Bismuth Salicylate is the article that should invariably be dispensed on prescriptions calling f. "Bismuth Salicylate" without any further designation.

Bismuth Sulphate Merck

Wh. powd.; cont. approx. 68%–69% Bi.—Sol.: Dil. HCl & HNO_3 ; insol. W., A.—Is without therapeutic significance.

Bismuth Sulphide

$\text{Bi}_2\text{S}_3 = 514.18$.—Blackish-brown powd.—Sol.: HNO_3 & boil. conc. HCl; insol. W. & dil. acids.—USES: As contrast substce in X-ray investigations.

Bismuth Sulphocarbolate Merck

Bismuth Phenolsulphonate or Sulphophenate.— $\text{Bi}(\text{C}_6\text{H}_4.\text{OH}.\text{SO}_3)_3 = 728.39$.—Reddish-wh. powd.; faint phenol odor, & acid react.—Sol.: W., HCl.—ACTION: Antisep.—USES: *Intern.*, intest. disinf. in typhoid fever, dyspep., & abnorm. intest. ferment, &c.—DOSE: 0.2–0.5 Gm. (3–8 grn.) 3 or 4 t.p.d.

BISMUTH SULPHOPHENATE—see Bismuth Sulphocarbolate.

Bismuth Tannate Merck

Yellow powd.—Fr. freshly prepared bismuth hydroxide & tannin, by mixing & drying.—Sol.: Acids; insol. W., A., E.—ACTION: Astring.; Antisep.—USES: Relaxed condit. of muc. membr. of alim. canal; acute & chron. dysent., diar., &c.—DOSE: 0.6–2 Gm. (10–30 grn.); children, 2 Gm. (30 grn.) p.d.

Bismuth Tartrate

$\text{Bi}_2(\text{C}_4\text{H}_4\text{O}_6)_3 + 6\text{H}_2\text{O} = 970.25$.—Wh. powd.—Sol.: Alkalies & HCl; insol. W., A.

BISMUTH TERNITRATE—see Bismuth Nitrate

BISMUTH, TETRABROMPYROCATECHIN—see Noviform

BISMUTH TETROXIDE—see Bismuth Peroxide

BISMUTH TRIBROMCARBOLATE—see Bismuth Tribromphenate

BISMUTH TRIBROMIDE—see Bismuth Bromide

Bismuth Tribromphenate

Tribromphenol-Bismuth; Bismuth Tribromcarbolate; Sigmaform (B.P.C.).—Approx., $\text{Bi}(\text{C}_6\text{H}_2\text{Br}_3\text{O})_2\text{OH}.\text{Bi}_2\text{O}_3 = 1351.62$.—Yellow, neut., alm. odorl., tastel. powd.; contains abt 50% Bi.—Insol. W., A., C., mineral & veget. oils; decomp. by alkalies & acids.—ACTION: Intest. Antisep.—USES: *Intern.*, cholera, Asiatic cholera, dysentery, cholera infantum, inflam. condit. of muc. membr. of intest., & gastric ferment.—*Extern.*, inst. of iodoform as wound antisep. in leg ulcer, weeping eczema; also in soft chancre, gonorr., burns.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.; children, 0.12–0.3 Gm. (2–5 grn.).—MAX. D.: 6 Gm. (90 grn.) p.d.—APPL.: As dust-powd. instead of iodoform, & in 10%–20% oint.—VETER. MED., in infectious intestinal catarrh in horses & dogs, & in diar. in calves & horses. *Horses*, 10 Gm. ($2\frac{1}{2}$ dr.) single, 20 Gm. (5 dr.) p.d.; *dogs*, 1–3 Gm. (15–45 grn.); *calves*, 3–5 Gm. (45–75 grn.).—INCOMP.: Alkalies; heat.

BISMUTH TRIBROMPHENOL—see Bismuth Tribromphenate

BISMUTH TRICHLORIDE—see Bismuth Chloride

BISMUTH TRIHYDRATE—see Bismuth Hydroxide

BISMUTH TRIIODIDE—see Bismuth Iodide

BISMUTH TRINITRATE—see Bismuth Nitrate

Bismuth Trioxide Merck

Bismuth(ous) Oxide; Bismuth Yellow.— Bi_2O_3 = 466.00.—Light-yellow powd.—**SOL.**: Acids; insol. W.—**USES**: As of bismuth carbonate & subnitrate.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.), B.P.C.—**APPL.**: 1:8 oint.—**INCOMP.**: Alkalies, W. in excess.

Bismuth Valerate Merck

Bismuth Valerianate.— $\text{Bi}(\text{C}_5\text{H}_9\text{O}_2)_3 \cdot 2\text{Bi}(\text{OH})_3$ = 1032.34 (?).—Wh. powd.; valeric acid odor.—**SOL.**: Dil. HCl or HNO_3 ; insol. W. or A.—**ACTION**: Sedat.; Antispasm.—**USES**: Cephalal., neural., gastrodynia, dyspepsia, chron. heart-beat, cardial., epilepsy, chorea, &c.—**DOSE**: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); it has been stated that doses of 0.5–3 Gm. (8–45 grn.) single, & up to 10–15 Gm. (2½–4 dr.) p. day, can be given.—**CAUT.**: Keep well stoppered.

BISMUTH VALERIANATE—see Bismuth Valerate

BISMUTH WHITE—see Bismuth Subnitrate

BISMUTH YELLOW—see Bismuth Trioxide

Bismuth & Ammonium Citrate Merck—U.S.P. IX—Powd. or Scales

Compos'n variable; 46%–52% Bi_2O_3 .—**Lustr.**, wh. scales or wh. powd.—**SOL.**: v. eas. W.; sltly A.—**ACTION**: Stomachic & Astring.—**USES**: *Intern.*, dyspep., gastric disturb., diar., &c.—*Extern.*, 1–4:2000 aqu. solut. in urethral irrigat. in gonorr.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.); aver. dose, 0.12 Gm. (2 grn.), U.S.P.—**CAUT.**: Keep fr. light, well stoppered.

Bismuth & Cerium Oxalate

Mixt. eq. parts bism. oxalate & cerium oxalate.—Wh. powd.—**SOL.**: HCl; insol. W., A.—**USES**: Gastrointest. disturb. with vomiting.—**DOSE**: As of cerium oxalate.

Bismuth & Cerium Salicylate

Wh. powd.—**INSOL.** W., A.—**ACTION**: Antisep.; Antirheum.—**USES**: Enteritis, diar., dysentery.—**DOSE**: 0.3–0.6 Gm. (5–10 grn.).

Bismuth & Cerium Valerate

Wh. powd.—**SOL.**: Mineral acids; insol. W.—**USES**: Gastric & intest. affect. w. nervous symptoms.—**DOSE**: 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).

Bismuth & Potassium Iodide

$\text{BiI}_3 \cdot 4\text{KI}$ = 1253.84.—Red cryst.—**SOL.**: Solut. KI; decomp'd by W.—Not used medic.

do. —Solution

Dragendorff's Solution (f. alkaloids).—Aqu. solut. $\text{BiI}_3 \cdot 4\text{KI}$.

Bismuth & Sodium Iodide

$\text{BiI}_3 \cdot 4\text{NaI}$ = 1189.44.—Red cryst.—**SOL.**: Solut. NaI; decomp'd by W.—**ACTION**: Alter.; Antisep.

Bismuth & Sodium Salicylate

Mixt. of basic bism. salicylate & sod. salicylate in molec. proport.—Wh., odorl. powd.; decomp. by W.—**ACTION**: Antisep.; Disinf.; Anti-

rheum.—**USES & DOSES**: As of bismuth subsalicyl., in intest. dis. & rheum. affect.

Bismuth & Sodium Tartrate

Wh., odorl. & tastel. powd.; 72.7%–73.9% Bi.—**SOL.**: Abt 3 W. (slt. res.).—**USES**: Syphilis.—**DOSE**: 0.03 Gm. ($\frac{1}{2}$ grn.) by intramus. inj. into glutei. Initial dose 0.015 Gm. ($\frac{1}{4}$ grn.) incr. to 0.03 Gm. ($\frac{1}{2}$ grn.) w. the second, and continued in 2 or 3 doses weekly for 6–10 weeks.

BISMUTHATED PEPTONE—see Bismuth, Peptonized

Bismuthinite—Mineral

Bismuth Glance.—**OCCUR.**: Cumberland; Redruth; France; Germany; Sweden; Bolivia; U. S.; Australia.—**COMPOS.**: Bi_2S_3 .—**CRYST. SYST.**: Tetrag.—**LUSTER**: Metallic.—**COLOR & STREAK**: Lead-gray, inclining to tin-wh., w. yellowish or iridescent tarnish.—**CLEAV.**: Perfect.—**HARDN.**: 2.—**SP. GR.**: 6.4–6.5.—**USES**: Source of Bi.

BISMUTHOUS OXIDE—see Bismuth Trioxide

BISMUTHYL BROMIDE—see Bismuth Oxybromide

BISMUTHYL CHLORIDE—see Bismuth Oxychloride

Bismutose

Bismuth-albumin compd.; cont's abt 22% Bi & abt 66% albuminoid.—Wh. powd.—**SOL.**: Alkalies; sltly dil. acids; insol. W.—**USES**: *Intern.*, intest. & gastric affect., partic. in children.—*Extern.*, dust.-powd. in intertrigo, ecz., & burns.—**DOSE**: 1–2 Gm. (15–30 grn.) for children under 6 mos. old; 1 teasp. for older children.

BISSY NUTS—see Kola

Bistort—Fr. Cod.

Snakeweed; Adderswort; Snakewort.—Root of Polygonum Bistorta, L., Polygonaceæ.—**HABIT.**: North America; Europe; Northern Asia.—**CONSTIT.**: Gallic acid; tannin; starch.—**ACTION**: Astring.; Emmen.; Stim.—**USES**: *Intern.*, acute & chron. intest. catarrh, dysent., & amenor.—*Extern.*, in preparations intended to promote growth of hair.—**DOSE**: 0.3–4 Gm. (5–60 grn.).

Bisuspen

A 10% oily suspension of bismuth subsalicylate; 6% Bi.—**ACTION**: Antisyphilitic.—**DOSE**: 0.5–1 cc. (0.8–15 M) by intramuscular inj.

BITTER APPLE—see Colocynth

BITTER ASH—see Euonymus; Quassia

BITTER BARK—see Alstonia

BITTER CUCUMBER—see Colocynth

BITTER DAMSON—see Simaruba

BITTER GOURD—see Colocynth

BITTER HERB—see Centaury

BITTER MILKWORT—see Polygala

BITTER ROOT—see Gentian; Apocynum Androsaemifolium

BITTER SALT—see Magnesium Sulphate

BITTER STICK—see Chirata

BITTER WINTERGREEN—see Chimaphila

BITTERSWEET—see Dulcamara

BITTERWOOD TREE—see Quassia

BITUMEN—see Asphalt

Bitumen Sulphonated—N.F. V

A viscous liq. obt. by destruct. dist. of certain bituminous schists, sulphonating, & neutraliz. w. NH_4OH .—Reddish-brown to brown-black liq.—SOL.: W., G., misc. w. fixed oils & fats; partly sol. A., E., & compl. in a mixt. of A. & E.—ACTION: Antiphlogistic; Mild Antiseptic.—USES: As applic. in burns, rheumat., neuralg., erysip., carbuncles, & o. skin dis.; tends to promote absorption of swellings & effusions in contusions.—APPL.: 5%–50% oint. (Lanum best), or w. glycerin.

Biuret

Allophanic acidamide; Allophanamide.— $\text{NH}_2\text{CO.NH.CO.NH}_2 + \text{H}_2\text{O} = 121.09$.—Fr. urea by heat.—Wh., cryst.; decomp. by heat. into NH_3 & cyanuric acid.—SOL.: Abt 70 W.; v. eas. A.; v. sltly E.—MELT.: 190°C ., w. decomp.

BIURETAMIDINE SULPHATE—see Dicyandiamide Sulphate

Bixin

$\text{C}_{28}\text{H}_{34}\text{O}_5 = 450.41$.—Red coloring matter fr. seeds Bixa Orellana, L. (Annatto).—Not ident. w. orlean extract.—Dark red powd.—SOL.: C., hot A.; diffic. cold A., B., CS_2 ; v. sltly E.; insol. W.—MELT.: 189°C .—USES: Dye.

Bizzozero's Picrocarmine

Solut. 1 Gm. carmine in 6 cc. NH_4OH & 100 cc. W., mixed w. solut. 1 Gm. picric acid in 100 cc. W.; evap. to 100 cc. & add 20 cc. A.—USES: As of Ranvier's picrocarmine.

BLACK ALDER—see Alnus Serrulata

BLACK BALSAM—see Balsam Peru

BLACK BEAR'S FOOT—see Hellebore, Black

BLACK CHERRY, POISON—see Belladonna

BLACK COHOSH—see Cimicifuga

BLACK DOGWOOD—see Frangula

BLACK HAW—see Viburnum Prunifolium

BLACK HENBANE—see Hyoscyamus

BLACK INDIAN HEMP—see Apocynum

BLACK LEAD—see Graphite

BLACK MANGANESE OXIDE—see Manganese Dioxide

BLACK, NAPHTHOL—see Brilliant Black B

BLACK PEPPER—see Pepper

BLACK PRECIPITATE—see Mercury Oxide, Black, Hahnemann

BLACK ROOT—see Leptandra

BLACK SAMPSON—see Echinacea

BLACK SASSAFRAS—see Oliver's Bark

BLACK SNAKE ROOT—see Cimicifuga

BLACKBERRY BARK—see Rubus

BLACK-TANG—see Fucus

BLACKWORT—see Comfrey

BLADDER FUCUS—see Fucus

BLADDER HERB—see Alkekengi

BLADDER POD—see Lobelia

BLADDER-WRACK—see Fucus

BLANC D'ESPANGE } see Bismuth Oxychloride
BLANC DE PERLE }

BLANC FIXE—see Barium Sulphate

BLAZING STAR—see Aletris; Helonias

BLEACHING POWDER—see Lime Chlorinated

BLIND-WEED—see Capsella

BLISTERING BEETLE } see Cantharides
BLISTERING FLY }

Bloedite—Mineral

Astrakanite.—OCCUR.: Ischl, Hallstadt; Stassfurt; Astrakhan, Asia; India; Chili; etc.—COMPOS.: $(\text{SO}_4)_2\text{MgNa}_2.4\text{H}_2\text{O}$.—CRYST. SYST.: Monosym.—USES: Prep. Mg salts.

Blood—Dried, Fr. Bullocks

Dark, reddish-brown powd. or scales.—SOL.: Incompl. in W.—USES: Anemia, chlorosis.—TECHN., w. superphosphates as fertilizer; clarify'g sugar & syrups; manuf. special paints, glues, & cements; ppt'ng sewage, & purify'g water; add'n to feed of chickens & hogs; manuf. animal charcoal.—DOSE: 1 Gm. (15 grn.).

BLOODROOT—see Sanguinaria

BLOODSTONE—see Hematite

BLOODWORT—see Centaury

BLUE COHOSH—see Caulophyllum

BLUE DAISY—see Chicory

BLUE FLAG—see Iris

BLUE-GUM TREE—see Eucalyptus

BLUE MASS } see Mercury Mass
BLUE PILL }

BLUE QUARTZ—see Crocidolite

BLUE VERVAIN—see Verbena

BLUE VITRIOL—see Copper Sulphate

Boas' Solution—Test for free HCl in Gastric Juice

(1): Alcoholic 1:1000 solut. tropaeoline OO; a thin layer of the solution in a porcel. dish cautiously warmed over naked flame w. some gastric juice develops a violet color if free HCl present.—(2) Resorcinol, 10 Gm.; cane sugar, 3 Gm.; alcohol, 3 cc.; W. 100 cc.; cautiously heat 5 to 6 drops gastric juice w. 2 to 3 drops solution in a porcel. dish over naked flame to dryness—if free HCl present a pink to red color develops, but disappears on cooling (sensitivity 0.05% HCl).

BOETTGER'S PAPER—see Alkannin Paper

BOGBEAN—see Menyanthes

Bohlig's Solution—Test for Ammonia

(a) 1:30 aq. solut. HgCl_2 ; (b) 1:50 aq. solut. K_2CO_3 .—With solut. (a) free NH_3 & ammonium carbonate afford a wh. ppt.; other NH_4 salts are pptd only on adding solut. (b).

Böhmer's Hematoxylin

Alcoh. 10% solut. hematoxylin.—USES: As basis of other staining soluts.

do. Hematoxylin-Alum

Solut. 1 Gm. hematoxylin in 10 cc. A., mixed w. solut. 10 Gm. potassium alum in 200 cc. W.—USES: Staining nuclei.

BOLDEA—see Boldo

Boldin (Glucoside)

Boldoglucin.— $\text{C}_{30}\text{H}_{52}\text{O}_8 = 540.57$ (?).—Fr. lvs of *Peumus Boldus*, Mol. (Boldu Boldus Lyons).—Syrupy liq.—SOL.: A.—ACTION: Cholag.; Diur.; Tonic.—USES: Dis. of liver & in rheum.—DOSE: 0.06–0.2 Gm. (1–3 grn.) 5 or 6 t.p.d.

Boldine—Pure—Cryst.

$\text{C}_{17}\text{H}_{13}\text{N}(\text{OH}_2)(\text{OCH}_3)_2$ + abt 25% CHCl_3 as obt. when crystallized fr. C.—Alkaloid fr. *Peumus Boldus*, Molina.—SOL.: A., C.—MELT.: 161° – 163° C. after prev. soften'g.—ACTION: Hypn.; Stim.—USES: Nervous insom.; in hepat. affect., w. calomel; tinnitus aurium, vesical catarrh, anorexia, atonic dyspep., undernutrition.—DOSE: This is variously stated as 0.002–0.006 Gm. ($1/30$ – $1/10$ grn.); 0.01–0.05 Gm. ($1/6$ – $3/4$ grn.) per day; & 0.06–0.03 Gm. (1–5 grn.).—VETER. MED., in jaundice, chron. hepatitis & cystitis in dogs, 0.003–0.006 Gm. ($1/20$ – $1/10$ grn.), w. calomel; other dose statements are 0.01–0.05 Gm. ($1/6$ – $3/4$ grn.) per day; 0.06–0.2 Gm. (1–3 grn.) (U. S. Disp.).—N.B. Boldine is sensit. to light, hence eas. becomes dark-brown in color.

do. Merck

Total alkaloids fr. *Peumus Boldus*, Molina.—Grayish-wh., to grayish-yellow, bitter powd.—SOL.: A., C.; sltly E.; alm. insol. W.

Boldo—N.F. V; B.P.C

Boldu; Boldea; Boldus; Boldoa.—Lvs of Boldu Boldus (Mol.) Lyons (Boldea fragrans Gay; *Peumus Boldus* Mol.), Monimiaceæ.—HABIT.: Peru; Chili.—CONSTIT.: Volat. oil (abt 2%); boldine (abt 0.1%); boldoglucin.—ACTION: Diuret.; Tonic; Stim.; Sedat.—USES: Dis. of the liver & bladder; also in atony of various organs where quinine is contraindic.; rheumat., dyspep., gonorr., cystitis, chron. hepatic congestion, &c.—TECHN., in perfumery.—DOSE: 0.12–0.6 Gm. (2–10 grn.); aver. d. 0.5 Gm. (8 grn.).—FL'Dextr., 0.25–0.6 cc. (4–10 M).—Tr. (1:10) 0.6–2.5 cc. (10–40 M).

BOLDOA—see Boldo

BOLDOGLUCIN—see Boldin (Glucoside)

BOLDU, or BOLDUS—see Boldo

Bole, Armenian—Mineral

Bolus Armena; Bolus Rubra; Red Bole.—Natural ferruginous aluminum silicate.—OCCUR.: Originally Armenia, but now found elsewh. in Europe.—Pieces of various sizes, reddish, soft, & unctuous; adhesive to the tongue; easily reduced to powd.—INSOL. in the usual solvents.—SP. GR.: 1.9–2.0.—USES: Veter. medicine in cattle powders; color'g powders; cements; pigment.

BOLE, RED—see Bole, Armenian

BOLUS ALBA—see Kaolin

BOLUS ARMENA } see Bole, Armenian
BOLUS RUBRA }

BONDOLU—see Sassy Bark

BONE CHARCOAL—see Charcoal, Animal

BONE GLUE—see Glutin (Animal)

BONEBLACK—see Charcoal, Animal

BONESET—see Eupatorium

BONJEAN'S HEMOSTATIC EXTRACT—see Ergotin Bonjean, Liquid

BONOFORM—see Acetylene Tetrachloride

Boracite—Mineral

Stassfurtite.—OCCUR.: Stassfurt.—COMPOS.: $\text{B}_{16}\text{O}_{30}\text{Cl}_2\text{Mg}_7$.—CRYST. SYST.: Pseudoreg. (rhomb.).—USES: Source of borax.

Borage

Burrage; Bee Bread; Star-flower.—Flowers (also lvs) of *Borago officinalis*, L., Boraginaceæ.—HABIT.: Levant; cultivated in U. S. & Germany.—CONSTIT.: Flowers: Resin; mucilage; potassium nitrate.—Lvs: Mucilage; resin; tannin.—ACTION: Flowers: Emoll.; Demulc.; Diuret.—Lvs: Demulc.; Refrig.; Diaphor.—USES: Catarrhal affect., rheumat., & skin dis.; lvs also as kitchen vegetable.—DOSE: FL'Dextr., 2–4 cc. (30–60 M).

BORAL—see Aluminum Borotartrate

BORATED CREAM OF TARTAR—see Potassium Borotartrate

BORAX—see Sodium Borate

BORAX GLASS—see Sodium Borate, Fused

BORAX, NATURAL—see Tincal

Bordeaux Red

Sodium salt of alphanaphthylamineazobetanaphtholdisulphonic acid.—Brown powd.—SOL.: W. w. fuchsine-red color.—USES: Coloring confectionery & liqueurs.

BORDEAUX S—see Amaranth

BORDEAUX TURPENTINE—see Turpentine, French

BORIC-ACID MENTHOL ESTER—see Estoral

BORNEO CAMPHOR—see Borneol

Borneol

Baros, Sumatra, Borneo, or Malayan, Camphor; Borneyl Alcohol; Camphol; 6-Camphanol.— $C_{10}H_{17}OH = 154.19$.—A saturated alcohol fr. Dryobalanops aromaticus, Gaert., or fr. ordinary camphor by sod. or potass. alcoholate.—Wh., transl. substce; pecul., peppery odor; burning taste. Less volat. than ordinary camphor.—SOL.: A., E.; v. sltly W.—BOIL.: $212^{\circ}C$.—SP. GR.: 1.011 at $15^{\circ}C$.—MELT.: 203° – $204^{\circ}C$.—ACTION: Stim.; Antisep.—USES: *Intern.*, in the form of its esters (salicylate, valerate, etc.).—*Extern.*, in oint. as antisep. appl. for sores, headache, &c.—*Techn.*, in essence & perfumery; manuf. celluloid, & various medicinal esters.

BORNEOL ISOVALERATE—see Borneyval

BORNEOL ISOVALERYLGLYCOLATE—see Neoborneyval

BORNEOL SALICYLATE—see Salit

Bornite—Mineral

Erubescite; Purple Copper.—OCCUR.: U. S.; Mexico; South America; Germany, etc.—COMPOS.: Cu_3FeS_3 .—CRYST. SYST.: Reg.—LUSTER: Metallic.—COLOR: Dark reddish-brown on a fresh fract., rap. tarnishing blue, purple or iridesc.—STREAK: Grayish-black.—FRACT: Uneven to conch.—HARDN.: 3.—SP. GR.: 4.9–5.4.—USES: Important copper ore.

BORNYL ALCOHOL—see Borneol

BORNYL BROMOVALERATE—see Brovalol

BORNYL ISOVALERYLGLYCOLATE—see Neoborneyval

Borneyval

Borneol Isovalerate.— $C_{16}H_{17}O.C_5H_9O = 310.31$.—Colorl. liq.; odor & taste of valerian.—SOL.: A., E.; insol. W.—BOIL.: 225° – $260^{\circ}C$.—SP. GR.: 0.945–0.951.—ACTION: Nervine; Analges.; Sedat.—USES: Hysteria, nervous insomnia, neuroses, neurasth., hypochondria, cephalalgia, chorea, epilepsy, nervous asthma, incontinence of urine, menstrual disturbances, neurasthenic anaphrodisia, & palpitation.—DOSE: 0.25–0.75 cc. (4–12 M) in gelat. caps., (0.25 Gm. [4 M] ea.), 2–4 t.p.d.

Borochloretone

Mixt. chloretone 1 & boric acid 3.—ACTION: Antisep. & Anesthet.—USES: *Extern.*, as surgical dressing powd.

Boroglycerin—Dried

Glyceryl Borate; Glycerite, or Glyceride, of Boric Acid.—By heat'g 2 boric acid w. 3 glycerin.—Wh., transp., glassy, brittle, & hygros. masses.—SOL.: Hot W.; changes into glycerin & boric acid.—ACTION: Antisep.; Preserv.—USES: *Intern.*, antisep.—*Extern.*, f. wounds (5% solut.), putrid ulcers, purulent ophthalmia, etc.—*Techn.*, preservative.—DOSE: 2–5 Gm. (30–75 grn.).

do. —Syrupy

Glycerin Boroglycerite.—Fr. 62 H_3BO_3 & 92 G. (N.F. III); 47 H_3BO_3 & 64 G. (B. P. C.).—

Sweet, syrupy liq.—ACTION: Antisep.—USES: Preservative. (See also Barff's Boroglycerin.)

Boron—Amorph.

B = 10.90; disc. in 1807 by Davy.—Non-metal. element.—SP. GR.: Abt 2.5.—MELT.: 2200° – $2500^{\circ}C$.—Very soft, brown, amorph. powd.; ignites in air.—Insol. acids.

do. —Cryst.

Wöhler's Boron-carbon-aluminum compd.—Exceed. hard, brown, or brownish-black, friable, lustr. cryst.—Insol. in us'l solvents.—SP. GR.: 2.615.—USES: *Techn.*, inst. of diamond in glass-cutt'g & gem-polish'g.

BORON OXIDE, or SESQUIOXIDE—see (Acid) Boric Anhydride

Boron Tribromide

$BBr_3 = 250.66$.—Colorl., fum. liq.; decomp. by W. & by A.—BOIL.: $90^{\circ}C$.—SP. GR.: 2.69 at $15^{\circ}C$.

Boron Trichloride

$BCl_3 = 117.28$.—Colorl., fum. liq., decomp. by W. & by A.—BOIL.: Abt $18^{\circ}C$.—SP. GR.: 1.35 at $15^{\circ}C$.

BORON TRIOXIDE—see (Acid) Boric Anhydride

BORONATROCALCITE—see Ulexite

BORONATROCALCITE, ARTIFICIAL—see Calcium Borate

BORSALYL—see Sodium Borosalicylate

BOTULINUS ANTITOXIN—see Serum, Antibotulinus

Bouchardat's Solution—Test for Alkaloids

Solut. 1 I & 2 KI in 50 W.—Gives brown ppts w. alkaloids.—USES: Detecting alkaloids, even in urine.

BOULTON'S SOLUTION—see Solution Iodine, Phenolated

BOUNCING BET—see Saponaria

Boutron-Boudet's Soap Solution

Potass. soap dil. to a definite standard.—45 pts represent 0.012 pt CaO.—USES: Determ. hardness of W.

BOXBERRY—see Gaultheria

BRAGITE—see Fergusonite

BRANDY MINT—see Peppermint

BRASILIN—see Brazilin

Brayera—N.F. V; B.P.

Koussou; Kosso; Cusso (B.P.).—Dried panicles of pistillate flowers of Hagenia abyssinica, (Bruce) Gmelin; (Brayera anthelmintica, Kunth, B.P.), Rosaceæ.—HABIT.: Abyssinia.—CONSTIT.: Kosin (koussin; kossein; kosine); koussein; volat. oil; tannin; kosidin; protokosin; kosotoxin.—ACTION: Anthelmintic.—USES: Tapeworm.—DOSE: 8–15 Gm. (2–4 dr.); aver. dose, 15 Gm. (240 grn.) N.F.—Alcoh. extr., 2–4 Gm. (30–60 grn.).—Fl'dextr., 8–15 cc. (2–4 fl. dr.) p.d., in two doses, followed by castor oil.

BRAYERIN—see Kosin, Amorphous

BRAZIL POWDER—see Araroba

BRAZIL WAX—see Carnauba Wax

BRAZIL WOOD—see Pernambuco

BRAZILIAN ARROW-ROOT—see Tapioca

BRAZILIAN COCOA—see Guarana

Brazilin

Brasilin.— $C_{16}H_{14}O_5$ = 286.19.—Fr. *Cæsalpinia echinata*, Lam. (Brazil wood), or Sappan, L. (Sapanwood).—Sulphur-yellow cryst.; turns orange in air & light.—SOL.: Sltly W.; eas. A., E.—USES: *Techn.*, chiefly as a dye; also in solut. as indicator in volumet. analysis (acids = yellow; alkalies = carmine-red).—CAUT.: Keep well stoppered, fr. air & light.

Brazilin Paper

Pernambuco, or Fernambuco, Paper.—Wh. paper impregnated with an alcoholic or aqu. solut. of brazilin & then dried.—USES: Indicator (acids = yellow; alkalies = red).—CAUT.: Keep in dark.

BREMEN BLUE—see Copper Carbonate, Blue

BREMEN GREEN—see Copper Carbonate, Green

Brilliant Black B

Naphthol Black.—Sodium salt of disulphonaminoazonaphthaleneazobetanaphtholdisulphonic acid.—Blue-black powd.—SOL.: W. & A. w. violet color.—USES: Dyeing wool.

BRILLIANT COTTON BLUE—see Methyl Blue

Brilliant Green

Malachite Green, G.; Diamond Green, G.; Fast Green, J.; Ethyl, Emerald, Solid, or New Victoria, Green; Tetraethyldiparaminotriphenylcarbydride Sulphate.—Glist., golden cryst.—SOL.: W., A., w. green color.—USES: *Subcut.*, has been proposed for treat'g trypanosomiasis; *extern.*, in streptococcus & staphylococcus infections, operative & infected wounds, burns, etc. in 1:1000–500 aqu. solut., & as brush applic. of 5% solut. f. erysip.; 1%–2% oint. or paste in impetigo & indolent ulcers; aqu. solut. as inj. in gonorrh.—*Techn.*, dyeing silk, wool, leather, jute, & cotton yellowish-green; green ink; also for blue ink or stain, mixed w. equal wt. Hofmann's violet.

Brilliantcroceine M

Sodium salt of aminoazobenzeneazobetanaphtholdisulphonic acid.—Light-brown powd.—SOL.: W., w. cherry-red color.—USES: Manuf. pigments.

BRIMSTONE—see Sulphur

p-Bromacetanilid

Monobrom, or Monobromated, Acetanilid; Acetparabromanilid; Monobromphenylacetamide; Bromanilid; Bromantifebrin; Asepsin; Antisepsin.— $C_8H_4Br.NH(C_2H_3O)$ = 214.03.—Fr. acetanilid in glac. acetic acid by Br.—Wh. cryst.—SOL.: B., C., ethyl acetate; sltly W., A.—Cryst. fr. hot, aqu. sat. soluts as handsome

needles.—MELT.: 169° C. w. previous soften.—ACTION: Anod.; Analg.; Antipyr.; Antisep.—USES: *Intern.*, phth., neuralg., rheumat., pneum., typh. fever, febrile dis.—*Extern.*, dust-powd. wounds & ulcers; oint. (1:10) or supposit. (0.18–0.3 Gm. [3–5 grn.]) in piles.—DOSE: 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.) sev'l t.p.d. at 3-hr intervals. Higher doses, e.g., 0.25–0.3 Gm. (4–5 grn.) are stated to be inadvisable as they may give rise to cyanosis.

Bromal

Tribromacetaldehyde.— $CBr_3.CHO$ = 280.78.—Fr. A. & Br.—Yellowish liq.; forms hydrate w. W.—SOL.: A., E.—BOIL.: 174° C. w. decomp.—SP. GR.: 2.713 at 15° C.

Bromal Hydrate—Cryst.

Tribromaldehyde Hydrate.— $CBr_3.COH.H_2O$ = 298.79.—Fr. bromal & W.—Wh., or sltly yellowish deliq. cryst.; chloral odor; pung. taste.—SOL.: W., A., C., E., G.—MELT.: 53° C.—ACTION: Antispasm.; Sed., & Hypn.—USES: Epilepsy, chorea, tabes dorsalis & insom.; chemically as test of alkaloids.—DOSE: 0.2–1 Gm. (3–15 grn.) in solut.—INCOMP.: Alkaloids.

Bromalin

Bromethylformin Merck; Methenamine, or Hexamethylenamine, Bromethylate Merck.— $C_6H_{12}N_4.C_2H_5Br$ = 249.13.—Fr. methenamine, absol. A., & C_2H_5Br .—Colorl. cryst.; 32% Br.—SOL.: Abt 1 W.—ACTION: Nerve Sed.; Antiepil.—USES: Inst. of KBr in epilep., & neurasth.; also as nerv. sed. for childr. & women; is free fr. by-effects & rarely causes bromism.—DOSE: 2–4 Gm. (30–60 grn.) sev'l t.p.d.; 10–12 Gm. ($2\frac{1}{2}$ –3 dr.) per day (Dorv.).

Bromamide

Tribromaniline Hydrobromide.— $C_6H_4Br_3N.HBr$ = 410.76.—Colorl., odorl., tastel. need.—SOL.: C., E., oils, hot A.; insol. W.—MELT.: 117° C.—VOLAT. 154.4° C.—ACTION: Antipyr.; Antirheum.; Analg.—USES: Rheum. fever, chr. artic. rheum., neural, & nephritic dropsy.—DOSE: Adults, 0.6–1 Gm. (10–15 grn.); childr., 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).

Bromamylene

So-called "Amylene Bromide".— C_5H_9Br = 149.02.—Colorl. to yellowish liq.—BOIL.: 100° – 110° C. w. decomp'n.—SP. GR.: 1.55 at 15° C.

BROMANILID

BROMANTIFEBRIN } see p-Bromacetanilid

BROMCAMPHOR—see Camphor, Monobromated

BROMCRESOL PURPLE—see Dibrom-o-cresolsulphonphthalein

BROMDIETHYLACETAMIDE—see Neuronal

BROMDIETHYLACETYL CARBAMIDE—see Carbromal

Bromelia

Betanaphthylethylester.— $C_{10}H_7OC_2H_5$ = 172.16.—Colorl. cryst.—SOL.: A., C., E.; insol. W.—MELT.: Abt 33° C.—BOIL.: Abt 275° C.—USES: Perfumery, because of its fine, pineapple-like odor.

BROMEOSINE—see Eosine, Yellowish

BROMETHYLFORMIN—see Bromalin

Brometone

Tribrom-tertiary-butylalcohol; Acetone-bromoform.— $\text{CBr}_3\text{C}(\text{OH})(\text{CH}_3)\text{CH}_3 = 310.84$.—Fr. acetone & bromoform.—Fine white cryst.; camph. odor & taste.—*SOL.*: A, B, E.; sltly W.—*MELT.*: Abt 167°C . (N.N.R.).—*ACTION*: Sed. like KBr.—*USES*: Insomnia, hysteria, nerv. affect., epilepsy.—*DOSE*: 0.3 Gm. (5 grn.) 2–3 t.p.d.; childr. 6 yrs old, 0.12 Gm. (2 grn.) 3 t.p.d.

Bromine Merck—Reagent

Br = 79.92.—Dark reddish brown, fum'g, vol. liq.—*SOL.*: Abt 30 W.; eas. A, C, E., CS_2 .—*SP. GR.*: Abt 3.14 at 15°C .—*BOIL.*: 58.7°C .—Congeals at -7.3°C .

MAXIMUM OF IMPURITIES

Evap'n Res.	0.01%
Chlorine (Cl)	Abt 0.3%
Sulphuric Acid (H_2SO_4)	0.006%
Iodine (I)	0.100%
Organic Br Compds.	None

USES: Oxidizer; quant. determ'n of Mn, S, Pb, N, resorcinol, urea, & formic & cinnamic acids; solvent f. Au; separ. Ni & Co; reag. f. quinine (Abensour; Battandier; Flückiger; Eiloart; Weller), pyramidon (Barral), digitalin (Binz; Dragendorff), urea (Blarez; Knop; Moreigne), alkaloids (Bloxam; Grandeau), bile pigments (Capranika), phenol (Cotton; Küster; Landolt; Mascarelli; Flückiger), allyl & methyl alcohols & uric & hippuric acids (Denigès), volat. oils (Dragendorff), urine pigments (Flückiger), colophony (Förster), linseed oil (Halphen), acetanilid (Hirschsohn; Seidell), N (Hüfner), Co (Jaworowski), histidin (Knoop), formaldehyde (Legler), alphanaphthol (Léger), Fe (Mayer), vanillin (Mörk), emetine (Pander), ammoniac (Plugge), formic acid (Rupp), glue (Salkowski), eucaine (Saporetto), asafetida (Sechler), citric acid (Stahre), Zn (Werner), strychnine (Warton), melanin (Zeller), uracil & cytosine (Wheeler), & also f. the tryptophan reaction (Erdmann-Winteritz).

Bromine Merck—C.P.

Br = 79.92.—Disc. in 1826 by Balard.—Dark, reddish brown, fuming, vol. liq.—*SOL.*: Abt 30 W.; eas. A, C, E., CS_2 , & solut. alkali bromides.—*BOIL.*: Abt 59°C .—*SP. GR.*: Abt 3.14 at 15°C .—Congeals at abt -7.3°C .

MAXIMUM OF IMPURITIES

Evap'n Res.	0.020%
Chlorine (Cl)	Abt 0.5
Iodine (I)	0.100%
Organic Br Comp'ds.	None

USES: As of the Reagent, above.

do. Merck—N.F. V

DESCRIPT. & *SOL.*: As preceding.—*BOIL.*: Abt 63°C . N.F. V.—*SP. GR.*: Abt 3.1 at 25°C . N.F. V; 3.139 at 15°C .—*ACTION*: Alterative; Lymphatic Stim.; Caustic; Stim. Antisept.

Disinf.—*USES*: *Intern.*, laryng., diphth., or membr. croup, bronchocele, scrof. tumors, syph., chron. skin dis., ecz., goiter, scrofula, chron. arthritis, etc.—*Extern.*, caustic in gangrene, uter. cancer, chancroids, leg ulcers, hemorrhoids, insect bites.—*Techn.*, Dentistry & photogr.; rendering water germ-free for drinking (0.2 cc. of a solut. of 100 cc. W., 20 Gm. KBr, & 20 Gm. Br, per liter of W., the excess of Br being removed after 5 min. by adding 0.2 cc. of 9% NH_4OH).—*DOSE*: (Rarely, in aqu. solut.) 0.003–0.03 cc. ($\frac{1}{30}$ – $\frac{1}{2}$ M), sev'l t.p.d.—*APPL.*: *Caust.*, pure or in 1%–10% solut.; *antisept.* 0.25%–1% washes or oily paints, or 0.1–0.2:10 oint.—*INHALAT.*, solut. 0.2 Gm. (3 grn.) each Br & KBr in 100 cc. ($\frac{3}{4}$ fl. oz) W. as spray in diphth. & croup.—*VETER. MED.*: A solut. of 4 Gm. Br in 250 Gm. glyc. & 750 cc. W. as bandage, & subcut. inj. in rabies.—*ANTID.*: Inhal. of NH_3 ; stomach irrigation; starch paste; albumin; Na_2CO_3 or NaHCO_3 ; inhalations of carbolic acid, ammonia vapors, & solut. sod. thiosulphate as spray.—*INCOMP.*: Alkali hydroxides, arsenites, ferrous salts, hypophosphites, mercurous salts, HI.—*CAUT.*: Poison! Burns and blisters the skin if strong. Keep sealed & glass stoppered. When handling bromine, always keep ammonia W. within reach.

do. Merck—Technical

USES: Parting (gold & silver) & smelting works; manuf. Br salts, dyes, & military gases.

Bromine Chloride

Chlorine Bromide.— $\text{BrCl} = 115.38$ (only below 10°C).—Reddish-yellow, mobile, v. volat. liq.; vapors irrit. eyes. Begins to decompose & lose chlorine at 10°C .—*SOL.*: W., CS_2 , E.—*ACTION*: Caustic.—*USES*: In cancer, both intern. & extern.—*CAUT.*: Keep well stoppered.

BROMINE IODIDE—see Iodine Monobromide

BROMINE SOLUTION, SMITH'S—see Solution Bromine

Bromipin—10%

10% Brominized Vegetable Oil Merck.—Yellow, oily liq.; purely oleag. taste; 10% Br.—*SP. GR.*: 0.995–0.997 at 15°C .—*ACTION*: Nervine; Sedat.—Efficient succedaneum f. bromides; rarely occasions bromism.—*USES*: Epilepsy, neurasth., nervous cardiac disturb., convulsive cough, chorea, neuralg., whoop-cough, muscular twitchings, insomnia, headaches, migraine, ringing in the ears, seasickness, &c.—*DOSE*: *Intern.*, teaspoonf. 3–4 t.p.d.; in *epilepsy*, adults $\frac{1}{2}$ –2 tablesp. 3–4 t.p.d., & children 2–4 teaspoonf. p.d., in emuls. w. peppermint W. & syrup; or pure, flavored w. peppermint oil.—*Extern.*, as enema (children under 1 yr, 1 Gm. f. ea. month of age; 1–4 yrs, 12–15 Gm.; over 4 yrs, 15–20 Gm.; still older children, 25–30 Gm. in milk or flaxseed decoction.—In *VETER. MED.* in recurrent spasms in distemper in dogs, a tea- to a tablespoonful per dose.

do. —33⅓%

33⅓% Brominized Vegetable Oil Merck.—*SP. GR.*: 1.3–1.302 at 15°C .—*USES*: As of preceding; also as a contrast medium in bronchogra-

phy. Specially adapted for hypod. use.—**DOSES:** *Epilepsy*, tablespoonful in the evening.—*Extern.*, as enema (15–40 Gm. f. adults); to relieve irrit'n fr. frostbites (eq. parts Bromipin 33⅓% & castor oil).

do. —Tablets, 0.6 Gm. Each

Prepar. fr. saccharated Bromipin; ea. tabl. = 1 teaspoonful 10% Bromipin = 0.4 Gm. (7 grn.) Br = 0.6 Gm. (10 grn.) KBr.—Well adapted f. women & childr.—**DOSE:** 4–12 tablets p. d.

α -BROMISOVALERYLPARAPHENETIDIN—see Phenoval

BROM-METHYLPROPANE—see *iso*-Butyl Bromide

Bromocaffeine

$C_8H_9Br.N_4O_2$ = 273.06.—Wh. powd.—**SOL.:** v. sltly W., A., eas. C.—**MELT.:** 206° C.

Bromocoll

Gelatin-dibromotannate.—20% Br.—**SOL.:** Dil. alkalies; insol. W., A.—**ACTION:** Sedat.—**USES:** *Intern.*, as of the alkaline bromides.—*Extern.*, in pruritus & ecz. (us'y as 20% bromocoll-resorbin, = "bromocoll ointment").—**DOSE:** 1–5 Gm. (15–75 grn.).

Bromoform Merck—U.S.P. IX—Contains abt 4% Alcohol

Tribromomethane; Methenyl Tribromide; so-called "Formyl Tribromide."— $CHBr_3$ = 252.77.—Fr. acetone or A. & Br w. aid of $Ca(OH)_2$.—Colorl., heavy liq.; odor & taste as of chlorof.; cont. abt 4% A. as a preservative.—**SOL.:** A., B., C., E.; petrol. E., & oils; sltly W., U.S.P.; (800 W., abt 80 G., B.P.C.).—**SP. GR.:** 2.595–2.620 at 25° C., U.S.P.—**SOLIDIF.:** 5°–6° C.—**BOIL.:** 148°–150° C., B.P.C.—**ACTION:** Anesth.; Nervine; Sed.—**USES:** *Intern.*, chiefly whoop.-cough & bronchopneumonia in children; also chron. bronchitis, asthma, pulm. tuberc., pneum., & emphysema; in delirium & psychic disturbances of the insane; gastric pains, vomit., & phthisical cough; sea-sickness.—*Extern.*, as general anesthetic (but not safe to use), & by inhalat.—**DOSE:** 2–20 drops in hydroalcoh. solut. or emuls. in sea-sickness 250 cc. (8 fl. oz.) of 0.3:100 mixt. p.d. given in tablesp. doses. Children, as many drops as age in years, 3 to 5 t.p.d.; babies, 1–2 drops, 2 to 4 t.p.d. Aver. adult dose, 0.2 cc. (3 M).—**MAX. D.:** Adults, 0.5 cc. (8 M) single; 1.5 cc. (23 M) daily.—**ANTID.:** Camphor & ether, or strychnine, subcut.; stomach siphon; artif. respiration; cold douche to head while in a warm bath.—In VETER MED. in spasmodic cough in dogs, 0.25–0.5 cc. (4–8 M).—**INCOMP.:** Caustic alkalies.—**CAUT.:** Keep well stoppered.

do.

SP. GR.: 2.904 at 15° C.—**USES:** For separating mineral mixtures (Beyerink).

Bromohemol

Hemol w. 2.7% Br organically comb'd.—Brown powd.—**ACTION:** Antiepilep., Nerve Tonic; Sedative.—**USES:** Hysteria, neurasthenia, epilepsy, & partic. useful in debil.—**DOSE:** 1–2 Gm. (15–30 grn.) 3 t.p.d.

BROMOL—see Tribromphenol

BROMOMETHANE—see Methyl Bromide

Bromopyrine

Monobromantipyryne.— $C_{11}H_{11}BrN_2O$ = 267.08.—Wh. cryst.—**SOL.:** A., C., hot W.—**MELT.:** 117° C.—**ACTION:** Antipyr.; Antisep.—**DOSE:** As of antipyryne.—**CAUT.:** Not to be confounded with the mixt. of caffeine, antipyryne, & sod. bromide, also known as "bromopyryne."

BROMPHENOL BLUE—see Tetrabromphenolsulphonphthalein

Brom-Protlylin

Bromated phosphorus-albumin.—Light-yellow powd.; slt Br odor & taste.—2.7% P & 4% Br organically comb'd w. albumin.—**USES:** Nervine & sedative in hysteria, epilepsy, & other neuroses.—**DOSE:** 0.6–1.3 Gm. (10–20 grn.).

Bromsulphalein

Disodium Phenoltetrabromphthaleinsulphonate.— $\bar{O}.CO.C_6Br_4.C(C_6H_3[OH]SO_3Na)_2$ = 837.96.—Wh., cryst. powd.; 37%–38% Br.—**SOL.:** W.; insol. A. or acetone.—**USES:** As a test of liver function.—**DOSE:** 0.002 Gm. (1/30 grn.) per kilo of body wt by intraven. inj. in 5% aqu. solut.

BROM-TETRAGNOST—see Tetrabromphenolphthalein-Sodium

BROMTHYMOL BLUE—see Dibromsulphonphthalein

o-Bromtoluene

Orthomonobromotoluene (or, -ol).— $C_6H_4Br.CH_3[2:1]$ = 171.01.—Fr. toluene & Br, & separ. fr. *p*-comp'd.—Colorl. to yellowish liq.—**SOL.:** v. eas. A., B., E.; insol. W.—**SP. GR.:** 1.36 at 15° C.—**BOIL.:** 180° C.

p-Bromtoluene

Paramonobromotoluene (or, -ol).— $C_6H_4Br.CH_3[4:1]$ = 171.01.—Fr. toluene & Br, & separ. fr. *o*-comp'd.—Reddish cryst.—**SOL.:** A., B., E.; insol. W.—**BOIL.:** 185° C.—**MELT.:** 28° C.

Bromural

Alphamonobromoisovalerylurea. — $(CH_3)_2-CH.CHBr.CONH.CONH_2$ = 223.05. — Wh., alm. tastel. powd.—**SOL.:** E., A., hot W., & alkaline solutions; sltly cold W.—**MELT.:** 147°–149° C. (N.N.R.).—**ACTION:** Nerve Sedative; Mild Hypnotic.—**USES:** *Intern.*, colics, eclampsia, epilepsy, chorea, spasm of glottis, whoop.-cough, hysteria, psychic over-exertion, melancholia, traumatic psychoses, paranoia, cardiac & intestinal neuroses, nervous diarrhea, headaches, arteriosclerosis, hyperesthesia of cutaneous nerves during pregnancy, pruritus, urticaria, sea- & car-sickness, nervous insomnia, & as a calmate before & after operations.—**DOSE:** *Sedat.*, 0.3 Gm. (5 grn.) 3 t.p.d.; *hypnot.*, & before dental operations, 0.6 Gm. (10 grn.); in arteriosclerosis, sea-sickness, pruritus, etc., 1 Gm. (15 grn.).—For nurslings & young children, 0.05–0.15 Gm. (¾–2½ grn.).—In *ene-mas*, in doses like those given internally.

do. —Tablets, 5 Grains Each

BRONCINER'S SOLUTION—see Ammonium Sulphotellurate

BRÖNNER'S ACID—see Acid β -Naphthylamine-sulphonic

BROOM—see Scoparius

BROTHERWORT—see Pulegium

Brovalol

Bornyl Bromovalerate; Valisan; Eubornyl.—25.2% Br, 48.3% borneol, & 35.7% isovaleric acid.—Colorl., oily liq.—SOL.: A., C., E.; insol. W.—BOIL.: 163° C. at 10 mm. pressure.—ACTION: Sedative.—DOSE: 0.25–0.75 cc. (4–12 M) sev'l t.p.d. (Mkt'd in pearls ea. cont. 0.25 cc. [4 M]).

BROWN ACETATE—see Calcium Acetate, Technical

BROWN MUSTARD—see Mustard, Black

Brucine Merck

$C_{23}H_{26}N_2O_4 + 2H_2O = 430.37$. — Alkaloid fr. *Nux-vomica* & *Ignatia* seeds.—Wh. cryst.—SOL.: A., C., E.; sltly W.—MELT.: 105° C. hydrated, when rapidly heated; 178° C., anhydrous.—ACTION: Nerve Tonic like strychnine, but much milder ($\frac{1}{2}$ as powerful).—USES: As of strychnine; also subcut. in amblyopia & retrolbulbar neuritis.—Chem., detect'g & determ'g NO_3 in drinking W. etc. (Flückiger; Cazeuve; Kerting; Lunge-Lwoff; Reichardt), Sn (Denigès), glucose (Lindo), NO_2 (Pichard); also f. denatur'g alcohol.—DOSE: 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.), cautiously.—Subcut., 0.005–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{3}$ grn.) near temples or in arm.—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.), single; 0.2 Gm. (3 grn.), p.d.—ANTID.: Chloral hydrate; chloroform; tannic acid.

Brucine Hydrobromide

$C_{23}H_{26}N_2O_4.HBr = 475.27$.—Wh. cryst.—SOL.: W., A.—USES & DOSES: As of brucine alkaloid; but preferable, because more soluble.

Brucine Hydrochloride

$C_{23}H_{26}N_2O_4.HCl = 430.81$.—Wh. cryst.—SOL.: W., A.—USES & DOSES: As of brucine alkaloid.

Brucine Nitrate

$C_{23}H_{26}N_2O_4.NHO_3 + 4H_2O = 529.42$. — Wh. cryst.—SOL.: W., A.—USES & DOSES: As of brucine alkaloid.

Brucine Phosphate

$C_{23}H_{26}N_2O_4.H_3PO_4 + 3H_2O = 546.45$. — Wh. cryst. powd.—SOL.: W., A.—USES & DOSES: As of brucine alkaloid.

Brucine Sulphate Merck

$(C_{23}H_{26}N_2O_4)_2.H_2SO_4 + 7H_2O = 1012.87$.—Sm., wh. cryst.—SOL.: W., A.—USES & DOSES: As of brucine alkaloid.

BRUISEWORT—see Comfrey; Saponaria

BRUNSWICK GREEN—see Copper Carbonate, Green

Bryonia—N.F. V; B.P. C.

Bryony.—Dried root of *Bryonia alba*, L., or of *B. dioica*, Jacq., Cucurbitaceæ.—HABIT.: Europe.—CONSTIT.: Bryonin; bitter alkaloidal principle; volat. oil; resin (abt 2%).—ACTION: Purgat.; Emmen.; Vesicant; Emet. (in large doses).—USES: In dropsy as a hydragogue cathart.; pleurisy.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. d. 1 Gm. (15 grn.).—Alcoh. extr., 0.12–0.4 Gm. (2–6 grn.) sev'l t.p.d.—Fl'dextr., 0.6–4 cc. (10–60 M).—Tr. (1:10, B.P.C.), 0.06–0.6 cc. (1–10 M).

Bryonin

Glucoside fr. root *Bryonia alba*, L.— $C_{34}H_{50}O_9 = 602.57$ (Masson).—Amorph., brownish-yellow, bitter powd.—SOL.: W., A.; insol. E.—ACTION: Powerful Cathart.—USES: Dropsy, congested liver, pain in side following pleurisy, precordial attacks in pericarditis, & pains of chron. artic. rheum., & in conditions following acute infect. dis.; also in chron. inflam. condit. of serous membranes.—DOSE: 0.001 Gm. ($\frac{1}{80}$ grn.) ev. 2 hrs until catharsis, then 2–3 t.p.d.; in habit'l constip., 0.002–0.003 Gm. ($\frac{1}{80}$ – $\frac{1}{20}$ grn.).

BRYONY—see Bryonia

BUCCO—see Buchu

Buchu—U.S.P. X; B.P.

Bucco; Bucku; Buku.—Dried lvs of *Barosma betulina*, Bartl. & Wendl. (short buchu), or of *B. serratifolia* Willd. (long buchu), Rutaceæ; (lvs of *B. crenulata* Hooker, also used, though not official in U.S.P. or B.P.).—HABIT.: Southern Africa (Cape of Good Hope).—CONSTIT.: Diosphenol (barosma camphor); diosmin; bitter extractive; volat. oil (1.3%–2%); resin; mucilage; hesperidin; rutin (?).—ACTION: Diuret.; Tonic; Stim.; Diaphor.—USES: Chiefly in genito-urinary dis. (cystitis, pyelitis, vesical irrit'n, gonorrh.).—DOSE: 1–4 Gm. (15–60 grn.) in infus. or tinct.; aver. d., 2 Gm. (30 grn.).—Alcoh. extr. (solub. in A.), 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr. (U.S.P.), 1–4 cc. (15–60 M).—Liq. Extr. (B.P.C.), 0.3–1.3 cc. (5–20 M).—Comp. Fl'dextr., abt 1.3–4 cc. (20–60 M).—Tr. (1:5, B.P.C.) 2–4 cc. (30–60 M).

BUCHU RESIN—see Barosmin (Concentration)

BUCKBEAN—see Menyanthes

BUCKTHORN—see Frangula; Rhamnus Cathartica

BUCKU—see Buchu

BUGBANE—see Cimicifuga

BUGLEWEED—see Lycopus

BUGLOSS—see Anchusa

BUGWORT—see Cimicifuga

BUKU—see Buchu

Bulbocapnine

$C_{13}H_{19}NO_4 = 325.26$.—Alkaloid fr. tubers of *Bulbocapnus cavus* (*Corydalis cava*).—Wh., cryst. powd.—SOL.: A., eas. C.—MELT.: 199° C.—ACTION & USES: As of the hydrochloride.

Bulbocapnine Hydrochloride Merck

$C_{19}H_{19}NO_4 \cdot HCl = 361.73$.—Wh., cryst. powd.—**SOL.**: W.—**ACTION**: Has a pronounced action in hyperkinetic conditions such as occur in certain diseases of the nervous system.—**USES**: Tremor, paralysis agitans, chorea, & ataxic conditions.—**DOSE**: 0.1 Gm. ($1\frac{1}{2}$ grn.) intern., subcut., or intramusc. single; 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) p. day.—**MAX. DOSE**: 0.2 Gm. (3 grn.).

do. Merck—Solution—1 cc. = 0.1 Gm.

do. Merck—Tablets—0.1 Gm. Each

BULL NETTLE—see Solanum

BURANHEM—see Monesia

BURDOCK—see Lappa

BURNET SAXIFRAGE—see Pimpinella

BURNINGBUSH—see Euonymus

BURNT SPONGE—see Charcoal, from Sponge

BURNT SUGAR (COLORING)—see Caramel

BUROW'S SOLUTION—see Solution Aluminum Acetate, 5%

BURRAGE—see Borage

BUTAMIN—see Tutocaine

BUTANDIACID—see Acid Succinic

BUTANEDINITRILE—see Ethylene Cyanide

BUTANOL—see Alcohol Butylic, Primary, Normal

Butea Gum—B.P.

Bengal Kino.—Dried astringent juice fr. *Butea frondosa*, Roxb., Leguminosae.—Sm., irregular, dark-red fragments.—**SOL.**: Part. (40%) in hot 90% A., part. W.—**CONSTIT.**: Kinotannic acid (15%–62%).—**ACTION**: Astring.—**USES**: As of kino.

do. Seeds—B.P.

HABIT.: India.—**CONSTIT.**: Fat (abt 18%); albuminoids (19%); glucose (6%).—**ACTION**: Aper.; Anthelmin.; Rubef.—**USES**: As of santonin.—**DOSE**: 0.6–1.3 Gm. (10–20 grn.).

cis-**BUTENDIACID**—see Acid Maleic

trans-**BUTENDIACID**—see Acid Fumaric

Butesin

n-Butylparaminobenzoate.— $C_6H_4NH_2 \cdot COO \cdot (C_4H_9) = 193.18$.—Wh., odorl., tastel., cryst. powd.—**SOL.**: Dil. acids, A., B., C., E.; fatty oils; alm. insol. (1:7000) W.—**MELT.**: 55°–57° C.—**BOIL.**: 147° C. at 2 mm.—**ACTION**: Loc. Anesthetic; acts like anesthesin, but is said to be more powerful.—**USES**: As of benzocaine (N.N.R.) as dust'g powd., pure or diluted; or as troches, oint., suppositories, or in oily solut.

Butesin Picrate

Dinormalbutyl-*p*-aminobenzoatetrinitrophenol.— $(C_6H_4 \cdot NH_2 \cdot COO \cdot C_4H_9)_2 \cdot C_6H_2(NO_2)_3OH = 615.44$.—Yellow, amorph., odorl., sltly bitter powd.—**SOL.**: A., B., C., E.; 1400 W., 100 cottonseed oil.—**MELT.**: 109°–110° C.—**ACTION**: Antiseptic; Analgesic.—**USES**: Burns, ulcers, & o. painful denuded skin lesions; applied as a 1% oint. or oil solut.

Butolan

Benzylphenolcarbaminoic-acid Ester.— $C_6H_4 \cdot CH_2C_6H_5 \cdot OCONH_2 = 227.18$.—Colorl., odorl., alm. tastel. cryst.—**SOL.**: Diffic. W.; eas. hot A., B.—**ACTION**: Anthelmintic.—**USES**: Removing oxyuris.—**DOSE**: 0.5 Gm. (8 grn.) 3 t.p.d.; children 0.25 Gm. (4 grn.) 3 t.p.d.

BUTTER OF ANTIMONY—see Antimony Chloride

BUTTER OF ARSENIC—see Arsenic Chloride

BUTTER YELLOW—see Dimethylaminoazobenzene

BUTTER, ZINC—see Zinc Chloride

BUTTERCUP YELLOW—see Zinc Chromate

BUTTERFLY WEED—see Asclepias

BUTTERNUT—see Juglans

iso-Butyl Acetate

Acetic Isobutylester.— $C_4H_9 \cdot C_2H_3O_2 = 116.13$.—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 0.875 at 15° C.—**BOIL.**: 116° C.—**USES**: Flavor.

BUTYL ALCOHOL—see Alcohol *iso*-Butylic

iso-Butyl Benzoate

$C_4H_9 \cdot C_7H_5O_2 = 178.17$.—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 1.002 at 15° C.—**BOIL.**: 237° C.

iso-Butyl Bromide

1. Brom-2-methylpropane.— $(CH_3)_2 \cdot CH \cdot CH_2 \cdot Br = 137.01$.—Fr. isobutyl A., Br. & P.—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 1.260 at 15° C.—**BOIL.**: 91°–92° C.

iso-Butyl Butyrate

Isobutyl Normalbutyrate; Isobutyric Ester of Normal Butyric Acid.— $CH_3 \cdot CH_2 \cdot CH_2 \cdot COO \cdot CH_2 \cdot CH \cdot (CH_3)_2 = 144.17$.—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 0.866 at 15° C.—**BOIL.**: 156° C.

iso-Butyl iso-Butyrate

$(CH_3)_2 \cdot CH \cdot COO \cdot CH_2 \cdot CH \cdot (CH_3)_2 = 144.17$.—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 0.858 at 15° C.—**BOIL.**: 146° C.

iso-Butyl Carbamate

Isobutylurethane.— $NH_2 \cdot COOCH_2 \cdot CH \cdot (CH_3)_2 = 117.12$.—Colorl. cryst.—**SOL.**: A., E.; insol. W.—**MELT.**: 55° C.—**BOIL.**: 207° C.

BUTYL CHLORAL, ANHYDROUS—see Butyl-Chloral

iso-Butyl Chloride

1. Chlor-2-methylpropane.— $(CH_3)_2 \cdot CH \cdot CH_2 \cdot Cl = 92.55$.—Fr. Isobutyl A. by HCl or PCl_5 .—Colorl. liq.—**SOL.**: A.—**SP. GR.**: 0.880–0.883 at 15° C.—**BOIL.**: 69° C.—**USES**: As anesthetic (rarely); manuf. artif. musk.

iso-Butyl Chlorocarbonate

Butyl Chloroformate.— $C_4H_9 \cdot COO \cdot Cl = 136.56$.—Clear, colorl. liq., neutral or alm. so to dry litmus paper; vapors irrit. eyes & mucous membranes.—**SOL.**: B., C., E.; grad. decomp. by W. & A.—**SP. GR.**: 1.053 at 15° C.—**BOIL.**: 128° C.

BUTYL CHLOROFORMATE—see *iso*-Butyl Chlorocarbonate

iso-Butyl Formate

Teteryl Formate.— $\text{HCOOCH}_2\text{CH}(\text{CH}_3)_2 = 102.11$.—Fr. silver formate & teteryl iodide.—Colorl. liq.—SOL.: A.—SP. GR.: 0.882 at 15° C.—BOIL.: 98°–99° C.

iso-Butyl Iodide

1.Iod-2.Methylpropane. — $(\text{CH}_3)_2\text{CH}.\text{CH}_2\text{I} = 184.01$.—Fr. isobutyl A. & PI_3 .—Colorl. liq.; rapid. bec. brown on expos.—SOL.: A.—SP. GR.: 1.614 at 15° C.—BOIL.: 120° C.

Butyl Iodide—Secondary

$\text{CH}_3.\text{C}_2\text{H}_5.\text{CHI} = 184.01$.—Fr. *n*-butylene & HI .—Colorl. liq.; rapid. turns brown on expos. to light.—SOL.: A.—SP. GR.: 1.589 at 15° C.—BOIL.: 118° C.—CAUT.: Keep in dark amber, well-stop'd bot.

iso-Butyl Nitrate

$(\text{CH}_3)_2\text{CH}.\text{CH}_2\text{NO}_3 = 119.10$.—Fr. isobutyl iodide by urea w. AgNO_3 .—Colorl. liq.—SOL.: A.—SP. GR.: 1.019 at 15° C.—BOIL.: 123° C.

BUTYL NITRITE—see *iso*-Butyl Nitrite

iso-Butyl Nitrite

Butyl Nitrite, B.P.C.— $(\text{CH}_3)_2\text{CH}.\text{CH}_2\text{ONO} = 103.10$.—Fr. isobutyl A., H_2SO_4 , & NaNO_2 .—Yellowish liq.—SOL.: A.—SP. GR.: 0.875 at 15.5° C.—BOIL.: 67°–68° C., B.P.C.—ACTION: Vasodilator.—USES: As of amyl nitrite.—DOSE: 0.12–0.3 cc. (2–5 M) by inhal'n.

iso-Butyl Propionate

$\text{C}_2\text{H}_5.\text{COO}.\text{CH}_2.\text{CH}(\text{CH}_3)_2 = 130.15$.—Colorl. liq.; ether. odor.—SOL.: A.—SP. GR.: 0.873 at 15° C.—BOIL.: 136°–137° C.

iso-Butyl Sulphocyanate

Isobutyl Rhodanide, or Sulphocyanide.— $\text{C}_4\text{H}_9\text{SCN} = 115.17$.—Colorl. liq.—Misc.: W.—BOIL.: 175° C.

iso-Butyl Valerate

$\text{C}_4\text{H}_9.\text{C}_5\text{H}_9\text{O}_2 = 158.19$.—Colorl. liq.; ether. odor.—SOL.: A.—SP. GR.: 0.861 at 15° C.—BOIL.: 168°–170° C.

Butyl-Chloral

"Croton" Chloral; α , α , β -Trichlorobutyraldehyde; Anhydrous Butyl Chloral; Butyr-chloral.— $\text{CH}_3.\text{CHCl}.\text{CCl}_2.\text{CHO} = 175.44$.—Fr. acetaldehyde or paraldehyde by Cl .—Colorl., oily liq.—SOL.: W., A., E.—BOIL.: 165° C.—SP. GR.: 1.405 at 15° C.—Unites w. W. to form butyl-chloral hydrate.

Butyl-Chloral Hydrate Merck

"Croton" Chloral, or Butyr-chloral, Hydrate.— $\text{CH}_3.\text{CHCl}.\text{CCl}_2.\text{CH}(\text{OH})_2 = 193.46$.—Fr. anhyd. butyl chloral, by W.—Light, wh., shin., cryst. scales; pung. odor.—SOL.: Abt 40 W., less than 1 G., or A. (90%), B.P.; 0.6 A. (90%), 1 G. 20 olive oil; 2 E., B.P.C.—MELT.: Abt 78° C.—ACTION: Analg.; Hypn.; Teniaf.—USES: *Intern.*, trigem. neural, toothache, tabetic pains, stenocardiac attacks, spasms, insomn. of heart dis.—*Extern.*, in pains of carious teeth.—DOSE: *Hypn.*, 0.3–1.2 Gm. (5–18 grn.);

analg., 0.1–0.3 Gm. (1½–5 grn.); *teniaf.*, 0.8 Gm. (13 grn.) at one dose in pills.—MAX. D.: 2 Gm. (30 grn.), single; 4 Gm. (60 grn.) p.d.—ANTID.: Stomach siphon, picrotoxin, atropine, strychn., caffeine, artif. respir.

iso-Butylamine—Primary

$(\text{CH}_3)_2\text{CH}.\text{CH}_2\text{NH}_2 = 73.12$.—Fr. isobutyl chloride & NH_3 .—Colorl. liq.—SOL.: A., W.—SP. GR.: 0.736 at 15° C.—BOIL.: 66° C.

iso-Butylene Dibromide

Dibromoisobutane; 1,2-Dibrom-2.Methylpropane.— $(\text{CH}_3)_2\text{CBr}.\text{CH}_2\text{Br} = 215.92$.—Fr. isobutylene & Br .—Yellowish liq.—SOL.: A.—SP. GR.: 1.798 at 15° C.—BOIL.: 149° C.

BUTYLENE HYDRATE—see Alcohol, Butylic

n-BUTYLETHYLMALONYLUREA—see Neonal

n-BUTYLPARAMINO BENZOATE—see Butesin

Butyn

Paraminobenzoyl-gammadinormalbutylaminopropanol Sulphate; γ -Dibutylaminopropyl-*p*-aminobenzoate-*n*-Sulphate.— $(\text{NH}_2.\text{C}_6\text{H}_4.\text{COO}[\text{CH}_2]_3.\text{N}[\text{C}_6\text{H}_9]_2)_2\text{H}_2\text{SO}_4 = 806.82$.—Colorl., odorl., hygroscop. solid.—SOL.: In less than 1 W. at 20° C., slowly in cold but rapidly in hot W.; v. sol. warm A. & acetone, sltly C.; insol. E.—MELT.: 98°–100° C.—ACTION: Loc. Anesthetic.—USES: As of cocaine for eye & mucous membranes (nose & throat) in 2%–5% solut. (this may be sterilized by boil'g).

Butyramid—Normal

$\text{CH}_3.\text{CH}_2.\text{CH}_2.\text{CONH}_2 = 87.10$.—Fr. ammon. butyrate by heat.—Wh. cryst.—SOL.: W.—MELT.: 115° C.—BOIL.: 216° C.

BUTYR-CHLORAL—see Butyl-Chloral

BUTYR-CHLORAL HYDRATE—see Butyl-Chloral Hydrate

BUTYRIC ALCOHOL—see Alcohol Butylic, Primary, Normal

BUTYRIC ANHYDRIDE, NORMAL—see (Acid) Butyric Anhydride

Butyrin

Tributyryn; Glycerin Tributyryl.— $\text{C}_3\text{H}_5.(\text{C}_4\text{H}_7\text{O}_2)_3 = 302.28$.—Fr. butyric acid & G. by boil.—Colorl., oily liq.—SOL.: v. eas. A., E.—SP. GR.: 1.058 at 15° C.—BOIL.: 285° C.

BUTYRONE—see Dipropylketone

iso-BUTYRYL ALDEHYDE—see Aldehyde *iso*-Butylic

Butyryl Chloride—Normal

$\text{CH}_3(\text{CH}_2)_2.\text{COCl} = 106.54$.—Fr. butyric acid & PCl_3 by dist'n.—Colorl. liq.—SP. GR.: 1.027 at 20° C.—BOIL. Abt 101° C.

iso-Butyryl Chloride

Isobutyryl Chloride.— $(\text{CH}_3)_2\text{CH}.\text{COCl} = 106.54$.—Colorl. liq.—SP. GR.: 1.017 at 20° C.—BOIL.: 92°–95° C.

BUTYRYL OXIDE—see (Acid) Butyric Anhydride

C

CABBAGE ROSE—see Rose, Pale

CACAO BUTTER—see Oil Theobroma

Cacao Shell

Theobroma. Shells; Cocoa Shells.—Shells of the seed of Theobroma Cacao, L., Sterculiaceæ.—HABIT.: South America (Brazil, Cent. America); Mexico; West Indies; most tropical countries.—Thin, papery, reddish-brown, concavo-convex shells; weak chocolate-like odor & taste.—CONSTIT.: Theobromine; caffeine; cacao-red.—USES: As diuretic tea.

CACHOU—see Catechu, Black

Cactus Grandiflorus—N.F. V

Night-blooming Cereus; Large-flowered Cereus.—Fresh succulent stems of Selenicereus grandiflorus Brit. & Rose, (dried young shoots & flowers of Cereus grandiflorus, B.P.C.), Cactaceæ.—HABIT.: Tropical America.—CONSTIT.: Cactine (?); acrid, resinous glucoside; resins; fat; wax, &c.—ACTION: Card. Stim., Diuret.—USES: In low fevers & in funct. & organ. dis. of heart; dropsy; hemoptysis; threatened apoplexy. Said to be devoid of cumul. action.—DOSE: Aver., 0.5 Gm. (8 grn.).—Tr. (1:2), 0.3–2 cc. (5–30 M).—Fl'extr. (of shoots & flwrs) 0.12–0.6 cc. (2–10 M); Max. D.: 2 cc. (30 M).

CADAVERINE—see Pentamethylenediamine

Cadechol

Camphor-choleic Acid.—Cont. 28% camphor.— $C_{20}H_{40}O_4$. $C_2H_{10}O_{16}$ = 634.51.—Colorl., cryst. powd.—SOL.: Hot A.; eas. dil. alkalies; insol. W.—MELT.: 180°–183° C.—USES: Chron. circulatory disturbances due to cardiac or vascular debility; vascular paralysis following infectious diseases; to replace digitalis, or to be used with digitalis, particularly in intolerance to digitalis. Stated to pass through the stomach unchanged, but is dissolved in the intestines, hence free fr. usual disturbing effect of camphor on stomach, & avoids the unpleasantness due to frequent subcut. inj.—Mktd in tabl. ea. cont'g 0.1 Gm. (1½ grn.) active substce.

Cadmium Merck—Sticks

Cd = 112.40; disc. in 1818 by Stromeyer & Hermann.—Silver-wh., v. lustr., blue-tinged bars, or light-gray powd.; eas. cut w. a knife, rolled into sheets, & drawn into wire.—SOL.: HCl on heat.; eas. dil. HNO_3 ; alm. insol. cold, but sol. hot, H_2SO_4 .—SP. GR.: 8.64.—MELT.: 320.9° C.—BOIL.: 778° C.—USES: Prepar. eas. fusible alloys (Lichtenberg's, Lipowitz's, Newton's, Rose's, & Wood's, metal; soft solder, & Abel's alloy), platinum & o. alloys, pigments, & medicinal prep's; coating metals; pptng Cu in quartation of gold; amalgams; glazing pottery; electrodes f. Cd vapor lamps; polarimetric investigations; photoelectric Cd cells; photometry of ultraviolet sun-rays; color'g glass; filaments f. incandesc. lights; daguerreotypes.

do. Merck—Powd.

Grayish-black, gran. powd.—SOL.: As preced.—USES: As amalgam w. Hg (1:4) in dentistry.

Cadmium Acetate Merck—C.P.

$Cd(CH_3COO)_2 + 2H_2O = 266.50$.—Colorl. cryst.; slt odor of acetic acid.—SOL.: v. eas. W., A.—At abt 130° C. becomes anhydrous.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.010%
Sulphate (SO_3).....	0.020%
Alkalies & Earths.....	0.30%
Aluminum (Al).....	0.100%
Copper (Cu).....	0.002%
Lead (Pb).....	0.02%
Zinc.....	Abt 0.05%

USES: Chem., test'g f. S, Se, & Te (Heyn-Bauer; Reinhardt); techn. in dentistry; produc'g iridescent effects on porcelains & pottery.

Cadmium Borotungstate

$2CdO \cdot B_2O_3 \cdot 9WO_3 + 18H_2O = 2738.89$.—Light-yellow, heavy cryst.—SOL.: v. eas. W.—USES: In solut. (clear, yellowish or light brown, Sp. Gr. 3.28) f. mechanically separating minerals (Klein).

CADMIUM BOROTUNGSTATE SOLUTION—see Klein's Solution

Cadmium Bromide Merck—C.P.

$CdBr_2 + 4H_2O = 344.30$.—Sm., wh., effloresc. cryst. need.—SOL.: 1 W., 4 A., moderately in acetone, sltly E.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	Abt 0.3%
Sulphate (SO_3).....	0.010%
Alkalies & Earths.....	0.20%
Copper (Cu).....	0.002%
Iron (Fe).....	0.002%
Lead (Pb).....	0.02%
Zinc.....	Abt 0.03%

USES: In photography, process engraving, & lithography.—CAUT.: Keep well stoppered.

Cadmium Carbonate Merck—C.P.

$CdCO_3 = 172.41$.—Wh., amorph. powd.—SOL.: Dil. acids.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.10%
Sulphate (SO_3).....	0.01%
Alkalies & Earths.....	0.50%
Copper (Cu).....	0.005%
Lead (Pb).....	0.040%
Zinc.....	Abt 0.05%

Cadmium Chlorate

$Cd(ClO_3)_2 + 2H_2O = 315.35$.—Colorl., prismat., deliq. cryst.—SOL.: v. eas. W., eas. A.—MELT.: 79°–80° C., w. prev. sintering.—CAUT.: Keep well stoppered.

Cadmium Chloride Merck—Reagent

$\text{CdCl}_2 + 2\text{H}_2\text{O} = 219.35$.—Colorl. cryst.—SOL.: 1 W.; slty A.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.005%
Alkalies & Earths	0.20%
Arsenic (As)	0.00075%
Copper (Cu)	0.002%
Iron (Fe)	0.002%
Lead (Pb)	0.010%
Zinc (Zn)	Abt 0.10%

USES: As a test f. pyridine bases; photogr.; also, as solut. 20 Gm. in 100 cc. W. + 500 cc. NH_4OH used in anal. as absorber of H_2S .

Cadmium Chloride Merck—C.P.

$\text{CdCl}_2 + 2\text{H}_2\text{O} = 219.35$.—Colorl. cryst., or wh. transluc. cryst. masses.—SOL.: Slty A.; 1 W.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.010%
Sulphate (SO_3)	0.010%
Alkalies & Earths	0.30%
Copper (Cu)	0.003%
Iron (Fe)	0.004%
Lead (Pb)	0.02%
Zinc	Abt 0.10%

USES: As of the Reagent.

do. Merck

Wh. granules.—SOL.: As preceding.—USES: Photography, dyeing & calico printing; manuf. cadmium yellow; in galvanoplasty.

CADMIUM HYDRATE—see Cadmium Hydroxide

Cadmium Hydroxide

Cadmium Hydrate.— $\text{Cd}(\text{OH})_2 = 146.42$.—Wh., powd.; eas. absorbs CO_2 .—SOL.: Eas. dil. acids, NH_4OH ; insol. W.

Cadmium Iodate

$\text{Cd}(\text{IO}_3)_2 = 462.24$.—Fine, wh. powd.—SOL.: v. slty W.

Cadmium Iodide Merck—C.P.

$\text{CdI}_2 = 366.24$.—Wh., lustr. scales or plates, stable in air.—SOL.: 1 W.; eas. A., acetone; slty. E.—MELT: 385°C .

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.030%
Sulphate (SO_3)	0.020%
Alkalies & Earths	0.10%
Aluminum (Al)	0.05%
Lead (Pb)	0.01%
Zinc (Zn)	Abt 0.03%

USES: *Chem.*, as reagent f. NO_2 (Böttger), morphine & papaverine (Hofmann-Schroff), & f. alkaloids (Lepage; Marmé; Vreven); also examining ether f. peroxides.—*Medic.*, as Resolvent & Antisept., *intern.*, like Zn salts as the Cd salts resemble the Zn salts in pharmacological action, but whether they are superior therapeutically is questionable.—*Extern.*, in 1:8 oint. in scrof. glands, tumors, chronic inflam. joints, chilbl., & skin dis., inst. of lead iodide; it may perhaps have an action like that of zinc iodide.—*Techn.*, photog.—DOSE: 0.005–0.008 Gm. ($\frac{1}{12}$ – $\frac{1}{8}$ grn.).—APPL.: 10%–15% oint.

do. Merck—Cryst.**Cadmium Nitrate Merck—C.P.**

$\text{Cd}(\text{NO}_3)_2 + 4\text{H}_2\text{O} = 308.48$.—Wh., hygrosc., cryst. lumps.—SOL.: A., less than 1 W.—MELT.: Abt. 100°C .

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.003%
Sulphate (SO_3)	0.02%
Alkalies & Earths	0.10%
Aluminum (Al)	0.95%
Copper (Cu)	0.003%
Lead (Pb)	0.010%
Zinc	Abt 0.05%

USES: Volumetr. determ. of Zn; test f. ferri-cyanides (Browning).

do. Merck—Cryst.

Sm., colorl., deliquesce. cryst.—SOL.: v. eas. W.—USES: *Techn.*, imparting to glass & porcelain the reddish-yellow cadmium luster; manuf. CdO .—CAUT.: Keep well stoppered.

Cadmium Oxalate

$\text{Cd}(\text{COO})_2 + \text{H}_2\text{O} = 218.43$.—Wh., amorph. powd.—SOL.: Eas. dil. acids, NH_4OH , & soluts. of NH_4 salts; insol. W., A.

Cadmium Oxide Merck—Anhydrous

$\text{CdO} = 128.40$.—Yellowish-red, often brownish-red to brownish-black, powd.—SOL.: Eas. dil. acids; insol. W.—USES: Cadmium galvanoplasting.

Cadmium Phosphate

$\text{Cd}_3(\text{PO}_4)_2 \cdot 2\text{CdHPO}_4 + 4\text{H}_2\text{O} = 1016.24$.—Wh. powd.—SOL.: Eas. dil. acids; insol. W.

CADMIUM RED—see Cadmium Selenide

Cadmium Salicylate

$\text{Cd}(\text{C}_7\text{H}_5\text{O}_3)_2 + \text{H}_2\text{O} = 404.57$.—Wh., small needles.—SOL.: Eas. A., NH_4OH ; slty W.—ACTION: Astring.; Antisept.—USES: Like the sulphate in ophthalm., conjunctivitis, syphilides, & in gonorr. & vaginitis.—APPL.: 1% aqu. solut.

Cadmium Selenide—Dark, Light Bluish, & Light Yellowish

Cadmium Red.—Cadmium sulphide cont'g selenium.—The various shades depend on the Se content.—USES: Manuf. lacquers; oil paints; & in enameling.

Cadmium Sulphate Merck—C.P.

$3\text{CdSO}_4 + 8\text{H}_2\text{O} = 769.51$.—Colorl., effloresc. cryst.—SOL.: Less than 1 W.; abt 2 A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Nitrate (N_2O_5)	0.003%
Alkalies & Earths	0.10%
Aluminum (Al)	0.05%
Arsenic (As)	0.001%
Copper (Cu)	0.002%
Lead (Pb)	0.00%
Zinc	Abt 0.03%

USES: As catalyst in the Marsh test for As; determ. H_2S ; detect'g fumaric acid.

do. Merck—Cryst.

DESCRIPT.: & SOL.: As preceding.—ACTION: Antisept.; Astring.—USES: *Intern.*, rarely in

syph. & rheumat.—*Extern.*, 0.5%–1% solut. inst. of ZnSO_4 as eye wash in chron. conjunctivitis, corneal opacities, leucoma, & blennorrhœa; also in 2% oint.; in 1%–2% solut. in gonorrh., otorrhea, syph., & rheumat.—*Techn.*, manuf. normal cadmium elements in electrotechn.—*Dose*: 0.006–0.012 Gm. ($\frac{1}{10} \cdot \frac{1}{5}$ grn.).—*Max.* D.: 0.1 Gm. ($\frac{1}{2}$ grn.) single; 0.2 Gm. (3 grn.) daily.

Cadmium Sulphide Merck—Orange

CdS = 144.46.—Orange-colored powd.—*Sol.*: Boil. conc. HCl; insol. W.—*Uses*: As of following.—*NOTE!* This CdS is absolutely fast to light & insensitive to H_2S .

do. Merck—Yellow

Cadmium Yellow; Jaune Brillant.—Light-yellow powd.—*Sol.*: Strong HCl, H_2SO_4 , & HNO_3 ; insol. W.—*Uses*: Pigment; color f. soaps; w. ultramarine f. produc. green color; coloring glass yellow; fireworks; coloring textiles, paper, rubber; printing inks; ceramic glazes.

Cadmium Tartrate

$\text{CdC}_4\text{H}_4\text{O}_6 = 260.45 + \text{aq.}$ —Wh., cryst. powd.—*Sol.*: Eas. dil. acids, & in NH_4OH ; insol. W.

CADMIUM YELLOW—see Cadmium Sulphide

Cadmium & Ammonium Bromide

$\text{CdBr}_2 \cdot 4\text{NH}_4\text{Br} = 664.08$.—Colorl., small cryst.—*Sol.*: A.; v. eas. W.

Cadmium & Potassium Cyanide

$\text{Cd}(\text{CN})_2 \cdot 2\text{KCN} = 294.65$.—Colorl. cryst.—*Sol.*: 3 cold, 1 boil., W.; insol. A.

Cadmium & Potassium Iodide

$\text{CdI}_2 \cdot 2\text{KI} + 2\text{H}_2\text{O} = 734.31$.—Wh. to sltly yellowish cryst. powd.—*Sol.*: A.; eas. W.—*Uses*: Test f. alkaloids.

Caffeine Merck—U.S.P. X

Theine; Guaranine; Methyltheobromine; Trimethylxanthine.— $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 + \text{H}_2\text{O}$, or, $\text{N}(\text{CH}_3) \cdot \text{CH} \cdot \text{N} \cdot \text{C} \cdot \text{CO} \cdot \text{N}(\text{CH}_3) \cdot \text{CO} \cdot \text{N}(\text{CH}_3) + \text{H}_2\text{O} = 212.17$.—Diureid fr. coffee, tea, guarana, Paraguay tea, or kola nuts. Us'y fr. lvs Thea sinensis, L. (Tea), or dried seeds of Coffea arabica (Coffee); also synthetically.—Wh., fleecy masses of long, flex., silky, odorl. cryst.; bitter taste.—*Sol.*: 46 W., 66 A., 5.5 C., 530 E., 50 acetone, 100 B., at 25° C., in 5.5 W. at 80° C., 22 A. at 60° C., & 22 boil'g B., U.S.P.; (80 W., & somewh. more sol. in A., B.P.; solubil. incr. by antipyrine, KBr, sod. benz., or sod. salicyl.—*Melt.*: 235°–237° C., when anhydrous, U.S.P.—*Subl.*: Abt 180° C., B.P.—*Action*: Physiol. Conserv.; Diur.; Cereb. Stim.; Cardiac Stim.; Muscle Invigorator.—*Uses*: Nerv. headache, neural., heart fail., cardiac dropsy, renal dropsy, chron. nephrr., collapse, angina pectoris, arteriosclerosis, senile pneum., enteritis; antid. in morphine, curare, & nicotine, poison., & also alcoholism; to render subcut. inj. of sod. salicyl. painless in rheumat. & eye dis., &c.—*Techn.*, as addit. to effective nutrient media for typhoid bacilli.—*Dose*: 0.06–0.5 Gm. (1–8 grn.) sev'l t.p.d.; aver. dose, 0.15 Gm. ($\frac{2}{5}$ grn.); in heart dis. & as

diuret. 0.2 Gm. (3 grn.) sev'l t.p.d. Children, 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.).—*Max.* D.: 0.6 Gm. (10 grn.), single; 2 Gm. (30 grn.) p.d.—In VETER. MED., horses & cattle, 2.5–5 Gm. (38–75 grn.); goats, sheep & pigs, 1–2 Gm. (15–30 grn.); dogs, 0.05–1 Gm. ($\frac{3}{4}$ –15 grn.) internally & 0.01–0.25 Gm. ($\frac{1}{2}$ –4 grn.) by subcut. inj.; cats, 0.05–0.25 Gm. ($\frac{3}{4}$ –4 grn.).—*NOTE*: Caffeine fr. coffee, it is claimed by some, differs physiol. fr. theine, as it is said to act principally on motor nerves, that fr. tea on sensory.

Caffeine Arsenated

Wh. powd.—*Sol.*: Hot W.—*Action*: Antineuralgic; Cholagogue.—*Uses*: Neuralg., & in certain forms of jaundice.—*Dose*: 0.001 Gm. ($\frac{1}{60}$ grn.) ev. 15 min. until 16 doses are taken p.d.—*CAUT.*: Poison!

Caffeine Benzoate Merck

$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 \cdot (\text{C}_6\text{H}_5\text{COOH})_2 = 438.32$.—Wh. powd.—*Sol.*: W., A.—*Uses & Doses*: As of caffeine.

"CAFFEINE BROMIDE"—see Caffeine Hydrobromide

Caffeine Carbolate

Caffeine Phenate or Phenolate.— $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 \cdot \text{C}_6\text{H}_5\text{O} + \text{H}_2\text{O} = 306.25$ (U.S. Disp.).—Wh. or pinkish cryst. mass.—*Sol.*: W.

"CAFFEINE CITRATE"—see Caffeine Citrated

Caffeine Citrate—True Salt

$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 \cdot \text{C}_6\text{H}_8\text{O}_7 = 386.25$.—White cryst. powd.—*Sol.*: W.; A. w. decomp'n.—*Uses & Doses*: As of Caffeine Citrated.—*CAUT.*: This salt is *not* the one intended when simply "Caffeine Citrate" is prescribed. When "Caffeine Citrate" is ordered without express specification of "true," the "Citrated Caffeine" of the U.S.P. is always intended.

Caffeine Citrated Merck—U.S.P. X

"Caffeine Citrate." A mixt. of caffeine & citric acid.—Wh., cryst. powd., cont'g 48%–52% anhydr. caffeine when dried to constant wt at 80° C., U.S.P.—*Sol.*: Abt. 4 warm W., but on add'g an eq. vol. W. a portion of the caffeine grad'ly separates, & rediss. on add'g more W.—*Uses*: As of caffeine.—*Dose*: 0.12–0.6 Gm. (2–10 grn.); aver. dose 0.3 Gm. (5 grn.).

do. —Effervescent—U.S.P. IX; B.P.

Abt 2% caffeine.—Coarse, wh., granul. powd.; efferv. on add'g W.—*Sol.*: W.—*Uses*: As of caffeine.—*Dose*: 4–8 Gm. (1–2 dr.); aver. dose 4 Gm. (1 dr.).—*CAUT.*: Keep dry.

CAFFEINE DIHODOHYDRIODIDE—see Caffeine Triiodide

Caffeine Hydrobromide Merck

So-called "Caffeine Bromide."— $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 \cdot \text{HBr} + 2\text{H}_2\text{O} = 311.11$.—Colorl. cryst. or powd.—*Sol.*: Abt 50 W., & also in A., w. decomp'n.—*Uses*: Chiefly as diuret.—*Dose*: 0.06–0.3 Gm. (1–5 grn.).—*Inj.*: 0.25–0.6 cc. (4–10 M) of solut. caffeine hydrobr. 10, HBr 1, distil. W. 3.—*CAUT.*: Keep well stoppered, in amber bottles, fr. air & light.

Caffeine Hydrochloride Merck

$C_8H_{10}N_4O_2.HCl + 2H_2O = 266.65$.—Colorless cryst.—SOL.: W., & in A., w. decomp.—USES & DOSES: As of caffeine.

CAFFEINE IODIDE—see Caffeine Triiodide

CAFFEINE PHENATE }
CAFFEINE PHENOLATE } see Caffeine Carbolate

Caffeine Salicylate Merck

$C_8H_{10}N_4O_2.HC_7H_5O_3 = 332.24$.—Wh. cryst. powd.—SOL.: W., A.—USES: Comb'd act. of caffeine & salicylic acid in migraine, gout, & rheumat.—DOSES: 0.06–0.3 Gm. (1–5 grn.).

Caffeine & Sodium Benzoate Merck—U.S.P. X

Caffeine Sodio-benzoate.—Mixt. caffeine & sod. benzoate, cont'g, when dried to constant wt, 47%–50% anhydr. caffeine, & 50%–53% sod. benzoate.—Wh., odorl., sltly bitter powd.—SOL.: 1.1 W., 30 A., at 25° C., & partly in C.—USES: As of caffeine; suitable f. subcut. use.—DOSE: Average, *intern.*, 0.3 Gm. (5 grn.), & *subcut.*, 0.2 Gm. (3 grn.).

do. —B.P.C.

Fr. 50 caffeine, 59 sod. benz., & 200 W., & evap'g.—Abt 45% caffeine.—Wh. powd.—SOL.: 2 W., 30 A. (90%).—USES: Inst. of caffeine, subcut.—DOSE: 0.12–1 Gm. (2–15 grn.) *intern.*, & 0.06–0.3 Gm. (1–5 grn.) *subcut.*

Caffeine & Sodium Salicylate Merck—N.F. V

Caffeine Sodio-benzoate.—Fr. eq. quant. caffeine & sod. salicyl., N.F. (fr. 50 caffeine & 55 sod. salicyl., B.P.C.).—Wh. powd.—SOL.: 2 W., 50 A. (85%).—USES: Inst. of caffeine, *intern.* & by inj., in migraine, pulmon. emphysema, asthmatic conditions, bronchitis, & partic. in rheum. w. heart dis., vascular paralysis of toxic or bacterial origin, & in threatened collapse of pneumonia.—DOSE: *Intern.*, 0.12–1 Gm. (2–15 grn.) single, & 2.5 Gm. (38 grn.) p.d.; aver. dose, 0.2 Gm. (3 grn.); *subcut.*, 0.06–0.3 Gm. (1–5 grn.).—MAX. D.: 1 Gm. (15 grn.) single, & 3 Gm. (45 grn.) p.d.—In VETER. MED. in hemoglobinemia in horses, & as cardi tonic f. horses & cattle 5–10 Gm. (75–150 grn.); pigs, goats & sheep 2–5 Gm. (30–75 grn.); dogs, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) *subcut.*, & 0.1–2 Gm. (1½–30 grn.) per os; cats, 0.1–0.5 Gm. (1½–8 grn.).

CAFFEINE-SODIUM IODIDE—see Iodocaffeine

Caffeine Sulphate Merck

$C_8H_{10}N_4O_2.H_2SO_4 = 292.23$.—Wh. cryst.—SOL.: W., or A., w. decomp.—USES & DOSES: As of caffeine.

Caffeine Triiodide

Caffeine Diiodohydriodide; Diiodocaffeine; Caffeine Iodide (B.P.C.).— $C_8H_{10}N_4O_2.I_2.HI + 1\frac{1}{2}H_2O = 602.94$.—Dark green, long prisms; metal. luster.—SOL.: Eas. A.; somewh. in C.; insol. W.—MELT.: 182°–184° C.—ACTION: Alter.; Diuret.—USES: Inst. of KI; said to be non-depressing, in rheum. & gout; also said to be useful in asthma.—Readily liberates iodine in system.—DOSE: 0.06–0.25 Gm. (1–4 grn.) sev'l t.p.d.—INCOMP.: Acids.

Caffeine Valerate Merck

Caffeine & Ammonium Valerate.—Wh. cryst.; 55% caffeine.—SOL.: W. w. decomp.—USES: Nerv. headache, nerv. vomit., whoop-cough, & hyst. condit. w. pain.—DOSE: 0.06–0.2 Gm. (1–3 grn.) single; 0.3–0.5 Gm. (3–8 grn.) p. day.

CAFFEINE & AMMONIUM VALERATE—see Caffeine Valerate

Caffeine & Sodium Bromide

Abt 60% caffeine hydrobromide, & 40% sod. bromide.—Wh. powd.—SOL.: W.—USES: Inst. of caffeine f. subcut. inj.—DOSE: Abt double that of caffeine.

Caffeine & Sodium Citrate

Abt 48% caffeine, w. 52% sod. citrate.—Wh. powd.—SOL.: 2 W.—USES: Inst. of caffeine f. subcut. inj.—DOSE: Abt double that of caffeine.

CAJEPUTENE—see Dipentene

CAJEPUTOL—see Eucalyptol

CALABAR BEAN—see Physostigma

Calamine Merck—Prepared—N.F. V

Zinc oxide cont'g a sm. amt ferric oxide.—Pink powd.—SOL.: Acids; insol. W.—USES: Extern. in var. skin dis. inst. of zinc salts, as powd., oint., or lotion.

do. —Mineral

Lapis Calaminaris; Galmey; Zinkspath; Hemimorphite.—OCCUR.: Widely distrib.—COMPOS.: Accord. to Dana, is a mixt. zinc carbonate & silicate, $H_2O.2ZnO.SiO_2$.—LUSTER: Vitr. to nearly pearly; somet. adamantine.—COLOR: Wh.; often tinted w. yellow or brown, rarely bluish or greenish.—STREAK: Wh.—FRACT.: Uneven to subconch; brittle.—HARDN.: 4.5–5.—SP. GR.: 3.43–3.50.—USES: *Medic.*, as a Zn prep. chiefly for extern. use.—*Techn.*, chiefly as a source f. manuf. of Zn & Zn salts.

Calamint—Fr. Cod.

Cap-mint; Mountain Balm.—Flowering plant of Calamintha officinalis, Moench (Clinopodium Calamintha, L.), Labiateæ.—HABIT.: Europe; Asia; cultivated in gardens.—USES: As vulnerary.

Calamus—B.P.C.

Sweet Flag; Calmus; Sweet Cane; Sweet Grass.—Dried rhizome of Acorus Calamus, L., Araceæ.—HABIT.: Europe; North America; Western Asia; cult. in Burmah & Ceylon.—CONSTIT.: Acorin; acoretin (choline); volat. oil (1.5%–3.5%); resin; tannin; starch.—ACTION: Tonic; Stomachic; Bitter; Carmin.; Stim.—USES: Dyspep., flatulence, &c.—DOSE: 1–4 Gm. (15–60 grn.).—Alcoh. extr., 0.12–0.36 Gm. (2–6 grn.) sev'l t.p.d.—Fl'dextr., 0.6–2 cc. (10–30 M).—Tr. (1:5) 1–4 cc. (15–60 M).

CALBROBEN—see Sabromin

CALC. or CALCAREOUS, SPAR—see Calcite

CALCIC LIVER OF SULPHUR—see Calcium Sulphide, Crude

CALCINAPHTHOL—see Asaprol

CALCINOL = Calcium Iodate

Calcite—Mineral

Calc Spar; Calcareous Spar.—OCCUR.: Widely distributed.—COMPOS.: CaCO_3 .—CRYST. SYST.: Hexag. rhombohed.—LUSTER.: Doubly refractive; vitr. to subvitr. to earthy.—COLOR: Wh. or colorl., also shades of gray, red, green, blue, violet, yellow; also brown & black when impure.—STREAK: Wh. or gray.—FRACT.: Conch.—HARDN.: 3; earthy kinds softer.—SP. GR.: 2.714 in pure crystals.—USES: Optical purposes in microscopy & in polariscopes; prep. very pure CaO , etc.—See also Iceland Spar.

Calcium Merck—Lumps or Turnings

$\text{Ca} = 40.07$.—Cont's slt quant's of impurities. Disc. in 1808 by Davy, & obt. electrolytically.—Hard, gray lumps abt size of walnut, part. coated w. oxide; lustrous surface when freshly cut, but grad. becomes gray by oxidation.—SP. GR.: 1.578 at 15°C .—MELT.: 810°C . (Moissan-Chavanne); 780°C . (Ruff-Plato); 800°C . (Arndt).—USES: As reducer in synthesis; inst. of Na & K in dehydrating; purifying iron; dehydrating oils; producing vacua.—CAUT.: Keep dry, in well-stop. bots.

Calcium Acetate Merck—C.P.—Dried

$\text{Ca}(\text{CH}_3\text{COO})_2 = 158.14$.—Wh. powd.—SOL.: Abt 3 W., less sol. in A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Sulphate (SO_3)	0.040%
Alkalies & Magnesium	0.20%
Barium	0.000%
Iron (Fe)	0.002%
Other Heavy Metals	0.000%

do. Merck—Purified—Gran.

$\text{Ca}(\text{CH}_3\text{COO})_2 + \text{H}_2\text{O} = 176.15$.—Wh. granules.—SOL: Pract. as of the preceding.—USES: *Medic.*, as of calcium lactate; also techn.—DOSE: 0.12–0.4 Gm. (2–6½ grn.). In spasmodic in children, at first 1–1.3 Gm. (15–20 grn.) ev. 2–3 hrs, then 1.25 Gm. (19 grn.) 6 t.p.d., then dose is reduced so that from the 8th day on only 5 Gm. (75 grn.) p.d. are given; later on in chronic cases 2.5–3 Gm. (38–45 grn.) p.d. continuously.

do. —Technical

Brown, or Gray, Acetate.—Gray, gran. powd.; empyreum., odor. SOL.: W.—USES: Chiefly in manuf. acetic acid, artif. vinegar, acetates, & acetone; also in dyeing, photog., tanning, & curing skins.

Calcium Acetylsalicylate—B.P.C.

Kalmopyrin; Soluble Aspirin; Tylcalsin; Kalse-tal.— $(\text{CH}_3\text{CO}.\text{OC}_6\text{H}_4\text{COO})_2\text{Ca} \cdot 2\text{H}_2\text{O} = 434.30$.—Fr. acetylsalicylic acid & $\text{Ca}(\text{OH})_2$ in alcoh. susp'n.—Wh., amorph. non-hygroscop. powd.—SOL.: 6 W., 800 A. (90%).—ACTION & USES: As of acetylsalicylic acid.—DOSE: 0.3–1 Gm. (5–15 grn.).

Calcium Arsenate Merck

Tricalcium Orthoarsenate. — $\text{Ca}_3(\text{AsO}_4)_2 + 3\text{H}_2\text{O} = 470.19$.—Wh. powd.—SOL.: v. sltly W.; eas. dil. acids.—USES: *Techn.*, as insecti-

cide, partic. f. insects destructive of plants & trees (is now being used by dusting fr. an aeroplane).

Calcium Arsenite

Variable composition.—Wh., gran. powd.—SOL.: v. sltly W.—USES: Insecticide & germicide.

Calcium Benzoate Merck

$\text{Ca}(\text{C}_6\text{H}_5\text{COO})_2 + 3\text{H}_2\text{O} = 336.27$.—Wh. powd., or cryst.—SOL.: Abt 20 cold, v. eas. boil., W.—ACTION: Alter.; Antisep.—USES: Scrof. affect., gout, struma, incipient hepatic cirrhosis, gravel, & rachitis.—DOSE: 0.5–2 Gm. (8–30 grn.).

CALCIUM o-BENZYLOXYBENZOATE, or BENZYL SALICYLATE—see Benzedo**CALCIUM BETANAPHTHOLALPHAMONOSULPHONATE—see Asaprol****CALCIUM BICHROMATE—see Calcium Dichromate****Calcium Bimalate**

Calcium Dimalate; Acid Calcium Malate.— $\text{Ca}(\text{HC}_4\text{H}_4\text{O}_6)_2 + 6\text{H}_2\text{O} = 414.29$.—Wh. cryst. powd.—SOL.: Sltly W.

CALCIUM BIPHOSPHATE—see Calcium Phosphate, Monobasic**Calcium Bisulphite—Solution, 8° Bé.**

Substantially $\text{Ca}(\text{HSO}_3)_2 = 202.21$.—Known only in solut., & the preparation here described is substantially a solut. of CaSO_3 in aqu. solut. SO_2 .—Colorl. or sltly yellowish liq.; strong SO_2 odor; on stand. in the air, acic. cryst. of $\text{CaSO}_3 + 2\text{H}_2\text{O}$ ppt.—SP. GR.: Abt 1.06 at 15°C .—ACTION: Disinf.; Antisep.—USES: *Extern.*, dil'd w. 4–8 volumes of W. as gargle or spray in catarrh of throat or diphth., & as inj. in vaginitis & endometr.; antisep. wash f. ecz., wounds, burns, or ulcers; as spray on pharyngeal mucosa in diphth.—*Techn.*, microbicide & preserv., partic. f. washing casks in brewing to prevent souring & cloudiness of beer (1:10,000), & to prevent secondary fermentation; antichlor in bleaching fabrics; bleaching sponges; largely in manuf. sulphite cellulose fr. wood, & in paper-making; also f. disinf. stables.—CAUT.: Solut. must not be allowed to come into contact w. metals.

Calcium Bitartrate

Acid Calcium Tartrate. — $\text{Ca}(\text{HC}_4\text{H}_4\text{O}_6)_2 + 2\text{H}_2\text{O} = 374.22$.—Colorl. cryst.—SOL.: Sltly W.

Calcium Borate Merck

Artificial Boronatrocalcite. — $\text{Na}_2\text{O} \cdot 2\text{CaO} \cdot 5\text{B}_2\text{O}_3 \cdot 16\text{H}_2\text{O} = 811.40$. — Wh. powd.—SOL.: Hot W.—ACTION: Antisep.; Astring.—USES: *Intern.*, infant. diarrhea.—*Extern.*, weeping ecz., fetid perspir., chafing, burns.—DOSE: Children, 0.1 Gm. (1½ grn.) f. ea. year of age.—APPL.: 10%–20% oint. or dust.-powd. in moist ecz. & in bromidrosis.—In VETER. MED. in diarrhea in calves, lambs, & suckling pigs, 2–5 Gm. (30–75 grn.); dogs, 0.5–1.5 Gm. (8–24 grn.); locally in burns & weep'g eczema.

Calcium Borocitrate Merck

Fine, wh. powd.—SOL.: Dil. acids; sltly W.

Calcium Bromide Merck—U.S.P. X—Powd.

$\text{CaBr}_2 + 2\text{H}_2\text{O} = 235.94$.—Wh. gran.; v. deliq.; sharp, saline taste.—**SOL.**: 0.7 W., 1.3 A. at 25°C ., 0.4 boil. W., & insol. C. or E., U.S.P.—**ACTION**: Nerve Sed., like KBr.—**USES**: Epilepsy, hyst., neuralgia, angina pectoris, insomn., tetanus; laryngospasm in children, &c.—**Techn.**, in manuf. of mineral waters, & in photog.—**DOSE**: 0.6–2 Gm. (10–30 grn.) 2 t.p.d., & 3–5 Gm. (45–60 grn.) p.d. Aver. dose, 1 Gm. (15 grn.) U.S.P.—Children (in laryngospasm), 10 cc. (150 M) of a 1:15 solut. 3 t.p.d. with meals.—**CAUT.**: Keep well stoppered.

Calcium Butyrate

$\text{Ca}(\text{CH}_3\text{CH}_2\text{CH}_2\text{COO})_2 + 3\text{H}_2\text{O} = 268.27$.—Wh. scales or cryst.—**SOL.**: W. (solut. alkal.).

Calcium Cacodylate

$\text{Ca}[(\text{CH}_3)_2\text{AsO}_2]_2 = 314.11$.—Wh., gran., alm. odorl. powd.; cont. abt 45% As as cacodylic acid.—**SOL.**: v. eas. W.—**ACTION**: Mild arsenical.—**USES**: As of sod. cacodylate.—**DOSE**: 0.05 Gm. ($\frac{3}{4}$ grn.).

Calcium Carbide

Acetylenogen.—Fr. lime w. carbon by the electric furnace.— $\text{CaC}_2 = 64.08$.—Grayish-black, irregular lumps. Decomp. by W., evol'g acetylene (C_2H_2) & leav'g a res. of slaked lime.—**Sp. Gr.**: 2.22.—**USES**: *Medic.*, gynecol., in uterine & vaginal epithelioma, the calcium carbide, in pieces the size of a small nut, being introduced into the vagina, which is then tamponed w. iodof. gauze.—**Techn.**, generating acetylene gas f. lighting purposes (1 kilo of carbide yields abt 300 liters acetylene); organic synthesis; as reducing agent, e.g., f. direct reduction of copper sulphide to metal. Cu; signal fires f. marine service; manuf. lampblack, cyanamide; welding & cutting metals; in fertilizers; also reagent f. santonin (Crouzel), & W. (Yvon).

CALCIUM CARBOLATE—see Calcium Phenate

Calcium Carbonate Merck—Reagent—Precip.—Free fr. Alkali

$\text{CaCO}_3 = 100.08$.—Wh., powd.—**SOL.**: In acids w. effervescence; sltly in CO_2 -water; insol. CO_2 -free W.

MAXIMUM OF IMPURITIES

Acid-insol. Substcs.	0.000%
Chloride (Cl)	0.001%
Nitrate (N_2O_5)	0.000%
Phosphate (P_2O_5)	0.002%
Sulphate (SO_3)	0.010%
Alkali (Na)	0.010%
Aluminum (Al)	0.010%
Iron (Fe)	0.003%
Other Heavy Metals	0.000%
Magnesium (Mg)	0.002%

USES: Detecting & determining Cl, Br, I, & H_2SO_4 , in organic combination (e.g. benzoic acid); with NH_4Cl f. decompos'g silicates; prepar'g CaCl_2 solut. f. standardizing soap soluts f. water analysis.

Calcium Carbonate Merck—C.P.—Precip.

$\text{CaCO}_3 = 100.08$.—Wh., powd.—**SOL.**: HCl or HNO_3 w. effervesc.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.003%
Nitrate (N_2O_5)	0.000%
Sulphate (SO_3)	0.030%
Iron (Fe)	0.004%
Other Heavy Metals	0.000%
Alkalies & Magnesia	0.30%

USES: As of the Reagent, above.

do. Merck—Precipitated—U.S.P. X

Precipitated Calcium Carbonate; Precipitated Chalk.— $\text{CaCO}_3 = 100.08$.—Fine, wh., odorl., tastel. powd.—**SOL.**: Acids, w. effervesc.; alm. insol. W., but solubility incr. by NH_4 salts & CO_2 .—**ACTION**: Antacid.—**USES**: *Intern.*, diar., pyrosis, acid condit. of intest., rachitis, scrofula, osteomalacia, delayed tooth format'n, also to increase coagulability of blood.—*Extern.*, tooth powd.; also f. burns & ulcers, chron. eczema; intertrigo, etc.—**Techn.**, removing acidity of wines.—**DOSE**: 0.6–4 Gm. (10–60 grn.); aver. dose 1 Gm. (15 grn.); to incr. coag. of blood, 2–4 Gm. (30–60 grn.).—**VETER. MED.**, horses & cattle, 10–50 Gm. ($2\frac{1}{2}$ – $12\frac{1}{2}$ dr.); sheep, goats & pigs, 3–10 Gm. (45–150 grn.); dogs, 0.5–2 Gm. (8–30 grn.); cats, 0.2–0.5 Gm. (3–8 grn.).—**INCOMP.**: Acids; alum; NH_4Cl .

do. Merck—Precipitated—U.S.P. X—Heavy Powd.**do. —Prepared—U.S.P. X**

Prepared Chalk; Drop Chalk; Whiting; Paris, or English, White.—Wh. powd. or conical drops.—**SOL.**: Acids, w. but slt res.—**USES**: *Intern.* & *extern.*, as of Calcium Carbonate, Precip., U.S.P.—**Techn.**, prep. CO_2 , manuf. calcimine, polishing powders, ceramics, glass, paints, dentifrices; as filler & pigment; silicate cements; matches; in metallurgy, building, &c.—**DOSE**: 0.6–2.6 Gm. (10–40 grn.).

CALCIUM CHINATE—see Calcium Quinate

Calcium Chlorate Merck

$\text{Ca}(\text{ClO}_3)_2 = 206.99$.—Wh., hygrosc. cryst. powd.—**SOL.**: v. eas. W., A.—**USES**: Photography, pyrotechnics, & in manuf. of mineral waters.—**CAUT.**: Keep well stoppered.

CALCIUM CHLORHYDROPHOSPHATE—see Calcium Hydrochlorophosphate

Calcium Chloride Merck—Reagent—Anhydrous

$\text{CaCl}_2 = 110.99$.—Colorl., hygrosc. granules.—**SOL.**: A.; v. eas. W.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.005%
Phosphate (P_2O_5)	0.001%
Sulphate (SO_3)	0.020%
Free Alkali (as CaO)	0.010%
Alkali & Magnesium Salts	0.30%
Aluminum (Al)	0.000%
Arsenic (As)	0.0002%
Barium (Ba)	0.001%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

USES: Detect'g & separat'g organic acids; detect'g A. in certain esters & volat. oils;

detect'g tartaric acid, H_2SO_4 , pyrocatechin; reag. f. A. (Borsarelli; Carles; Messner), CO-blood (Eulenberg), malic acid (Leach), bile pigments (Munk), oxalic acid (Salkowski), & fusel oil (Stein).

Calcium Chloride Merck—C.P.—Cryst.—For Soil Analysis

$\text{CaCl}_2 + 6\text{H}_2\text{O} = 219.09$.—Colorl., v. deliquescent. cryst.—SOL.: Less than 1 W.; A.—MELT.: Abt 30°C .

MAXIMUM OF IMPURITIES

Acid (as HCl)	0.0145%
Alkali (as NaOH)	0.0160%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.020%
Barium (Ba)	0.001%
Heavy Metals	0.000%

USES: For soil analysis; also as of the Reagent, preced'g.

do. Merck—C.P.—Dry Gran.

$\text{CaCl}_2 + 2\text{H}_2\text{O} = 147.02$.—Colorl., deliquescent. cryst.—SOL.: A.; v. eas. W.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.005%
Phosphate (P_2O_5)	0.000%
Sulphate (SO_3)	0.020%
Alkali & Magnesium Salts	0.60%
Aluminum (Al)	0.000%
Barium (Ba)	0.001%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

USES: As of the preced'g.

do. Merck—C.P.—Anhydrous

$\text{CaCl}_2 = 110.99$.—Wh., hygroscopic granules; not entirely anhydrous.—SOL.: A.; v. eas. W.

MAXIMUM OF IMPURITIES

Sulphate	0.030%
Free Alkali (as CaO)	0.020%
Iron (Fe)	0.020%
Other Heavy Metals	0.000%

USES: For drying tubes.

do. Merck—U.S.P. X—Gran., abt. 75%

$\text{CaCl}_2 + 2\text{H}_2\text{O} = 147.02$.—Colorl., v. deliquescent. cryst.—SOL.: 1.2 W. & abt 10 A., at 25°C , 0.7 boil W., & abt 2 boil. A.—ACTION: Hemostatic; Diuret.; Blood Coagulant.—USES: *Intern.*, hemorrhage, hemorrhagic endometritis, epistaxis, menorrhagia, & erythema nodosum; tetanus; spasmodic; blackwater fever; hay fever; asthma; hemophilia; albuminuria; nephritis; typhoid; coryza; tuberc.; osteomalacia; scrofula, rachitis & arthritis; to produce artif. calcification; tetanus, spasm of glottis, & infant. convulsions; urticaria, ecz., pruritus, chilblains; heart ton. in pneum.; diphth. in childr.; chron. ulcer of leg, frostbite; to prevent rash.—*Extern.*, corneal & conjunct. affect.; bleeding piles.—*Techn.*, brewing, & manuf. mineral waters.—DOSES: 0.3–1.3 Gm. (5–20 grn.) in solut.; aver. dose 1 Gm. (15 grn.). In tetanus, glottideal spasm, & convuls., 0.15–2 Gm. ($2\frac{1}{2}$ –30 grn.) p.d. f. childr. In pruritus, urticaria & prurigo, large doses, e.g., 1.2 Gm. (18 grn.) 3 t.p.d., incr'd to 1.8 Gm. (27 grn.) & even 2.4 Gm. (36 grn.). In frostbite & chilbl. 0.6–1

Gm. (10–15 grn.). In asthma, 0.8 Gm. (12 grn.) ev. 10 hrs. In hay fever, 4 cc. (60 M) of 20% solut. In hemophilia, 2 Gm. (30 grn.) 3 t.p.d. To incr. coagul. of blood, 2–4 Gm. (30–60 grn.). To cause artif. calcification 0.6–1.3–2.6 Gm. (10–20–40 grn.); intraven., 100–150 cc. (25–37 fl. dr.) of a 1% solut.—APPL.: In piles, as rectal inj. of 20 cc. (5 fl. dr.) 10% solut.; in corneal & conjunct. affect. as 0.5%–1% solut. as irrig. or eye drops.—VETER. MED., dogs, 0.5 Gm. (8 grn.) 3 t.p.d., & extern. in 5% solut. as hemostatic.—CAUT.: Keep well stoppered.

do. Merck—Pure, Dry—Granular

$\text{CaCl}_2 = 110.99$.—Wh., hygroscopic gran. or powd.; not entirely anhydrous.—SOL.: A.; v. eas. W.—USES, DOSES, ETC.: As of preced'g.—CAUT.: Keep well stoppered.

do. Merck—Pure, Dry—Large Granules

do. Merck—Pure, Fused—Granular, Lumps, or Sticks

Alm. anhydrous, wh., hard, v. deliquescent lumps, or gran. or eas. broken sticks.—SOL.: v. eas. W., A.—USES: As of the U.S.P., Gran.; also chem. as drying agent.—DOSE: 0.3–1 Gm. (5–15 grn.).—CAUT.: Keep well stoppered.

do. —Cryst., abt 50% CaCl_2

do. —Technical—Fused—Lumps, or Gran.

Wh. to yellowish-wh., deliq. lumps or gran. powd.—SOL.: A., v. eas. W.—USES: Drying agent; to obtain & maintain baths of high & constant temp.; preserv. meats in boxes; refrig. mixt.; manuf. ice; fire extinguishers; fireproofing fabrics; sprinkling on railway rails in snow-falls; coagulant in rubber manuf. Also as size in admixture w. starch paste; manuf. gypsum, HCl , alizarin, dyes, glues, cements, & sugar; preserving stone; increas. cementing power of lime f. mortars & wall plasters, laying dust on roads; sizing & finishing cotton fabrics; preserv'g wood; fireproof paints.

CALCIUM CHLORIDE-GELATIN—see Kalzine

Calcium Chromate Merck

$\text{CaCrO}_4 + 2\text{H}_2\text{O} = 192.10$.—Yellow powd.—SOL.: Dil. acids; sltly W.—USES: As pigment.

Calcium Cinnamate

Calcium Cinnamate.— $\text{Ca}(\text{C}_9\text{H}_7\text{O}_2)_2 + 3\text{H}_2\text{O} = 388.32$.—Colorl. cryst.—SOL.: Hot W.

CALCIUM CINNAMYLATE—see Calcium Cinnamate

Calcium Citrate Merck

$\text{Ca}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 4\text{H}_2\text{O} = 570.41$.—Wh. powd.—SOL.: Sltly W.—USES: Hay fever; formerly used as a sudorific & diuret; in pediatrics to increase the calcium content of the blood; and also by prolonged administration in tuberculosis of the bronchial glands and infantile tuberculosis.—DOSE: 4–5 Gm. (60–75 grn.) p.d. before onset of fever; in pediatrics, 1 Gm. (15 grn.).

Calcium Cyanamide

"Cyanamide."— $\text{CaCN}_2 = 80.09$.—Obt'd by

passing N gas over calcium carbide in an electric furnace.—Bluish-black lumps cont. small glistening cryst. of pure CaCN_2 & some Ca(OH)_2 , CaCO_3 , CaS , & C.—USES: Superior fertilizer; source of NH_3 ; manuf. dyes, explosives, & var. chemicals; case-hardening steel.

CALCIUM DIBROMBEHENATE—see Sabromin

Calcium Dichromate Merck

Calcium Bichromate. — $\text{CaCr}_2\text{O}_7 = 256.07$; cont's some aq.—Brownish-red, deliq. cryst.—SOL.: v. eas. W.

CALCIUM DIMALATE—see Calcium Bimalate

CALCIUM DIOXIDE—see Calcium Peroxide

CALCIUM-DIURETIN—see Theocalcin

CALCIUM ETHYLISOPROPYLBARBITURATE, or
ETHYLISOPROPYLMALONYLUREA—see Ipral

Calcium Ethylsulphate

Calcium Sulphovinate.— $\text{Ca(C}_2\text{H}_5\text{SO}_4)_2 + 2\text{H}_2\text{O} = 326.32$.—Wh. cryst.—SOL.: W., A.

Calcium Ferricyanide

$\text{Ca}_3\text{Fe}_2(\text{CN})_{12} + 12\text{H}_2\text{O} = 760.27$. — Reddish, very deliq. need.—SOL.: W.

Calcium Ferrocyanide

$\text{Ca}_2(\text{Fe}[\text{CN}]_6) + 12\text{H}_2\text{O} = 508.27$.—Yellow cryst.—SOL.: 0.66 W. at 90°C .

Calcium Fluoride Merck—C.P.

$\text{CaF}_2 = 78.07$.—Wh. powd.; bec. luminous w. heat.—SOL.: Aqu. solut. NH_4 salts; conc. H_2SO_4 , HNO_3 , or HCl ; insol. W.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Heavy Metals.....	0.000%

USES: As a test f. borax (Turner).

do. Merck

DESCRIPTION & SOL.: As of preced'g.—ACTION: Antiseptic.—USES: *Intern.*, improving the development of the teeth, v. small doses being given in caries, & also in bone fractures.—*Techn.*, etching glass; manuf. of enamels & HF.—DOSE: 0.0025 Gm. ($\frac{1}{40}$ grn.) (us'ly w. calc. bromide, carbonate, & phosphate, & magnes. fluoride) twice daily.

Calcium Formate Merck—C.P.

$\text{Ca(CHO}_2)_2 = 130.10$.—Wh. cryst. or cryst. powd.—SOL.: Abt 6 W., insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.020%
Alkalies & Magnesium.....	0.500%
Heavy Metals.....	0.000%

USES: As reducer (Ag, Hg).

do. Merck—Gran.

DESCRIPT. & SOL.: As preced'g.—USES: *Medic.*,

as of formic acid.—DOSE: 0.2–1 Gm. (3–15 grn.) twice daily.

CALCIUM GLYCERINOPHOSPHATE—see Calcium Glycerophosphate

Calcium Glycerolactophosphate

Mixt. calc. glycerophos. & calc. lactophos.—Wh. powd.—SOL.: W.

Calcium Glycerophosphate Merck—U.S.P. X—Powder

Calcium Glycerinophosphate; Neurosin. — $\text{CaO}_2\text{:PO}_2\text{:OC}_3\text{H}_5(\text{OH})_2 = 210.18$. — Wh., fine, odorl., somewh. hygroscop. powd.—SOL.: Abt 50 W. at 25°C ., less sol. in hot W., insol. A.; solub. increased by citric or lactic acid.—ACTION: Nerve Tonic.—USES: Where Ca & P medication required. In rachitis, neurasthenia, arteriosclerosis, anemia, chlorosis, arterial calcification, influenza, phth., enuresis, Addison's dis., tabes, hysteria, neuralg., diffic. dentition, incont. of urine, wasting dis. & convalesc. The P of lecithin of food is converted into glycerinophos. acid before assimil.; hence most natural form f. admin. P.—DOSE: 0.2–0.5 Gm. (3–8 grn.) single; up to 10 Gm. (150 grn.) p.d.; aver. d. 0.3 Gm. (5 grn.). Children, accord. to age, 0.3–3 Gm. (5–45 grn.) per day.—*Subcut.*, 0.2–0.5 Gm. (3–8 grn.) once p.d., in aqu. solut. or suspens.—VETER. MED., dogs, 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.) 3 t.p.d.—INCOMP.: Soluble carbonates, sulphates; acids.

Calcium Hippurate Merck

$\text{Ca(C}_9\text{H}_8\text{NO}_3)_2 + 3\text{H}_2\text{O} = 450.35$.—Wh., cryst. powd.—SOL.: 20 cold, 6 boil'g. W. (B.P.C.).—ACTION: Alter.; Antiarthrit.; Antilith.—USES: *Intern.*, cystitis, phosphaturia, lithiasis, scrof., phth., diffic. dentit., uric-acid diathesis, chron. gout, &c.—*Extern.*, ecz., impetigo, lichen, prurigo, scrofula, teething, etc.—DOSE: 0.3–2 Gm. (5–30 grn.).

CALCIUM HYDRATE—see Calcium Hydroxide

Calcium Hydride

Hydrolith. — $\text{CaH}_2 = 42.09$. — Grayish-wh. cryst. or lumps, eas. reduced to powd.; decomp. in moist air w. form. of Ca(OH)_2 & evol. of H. —Insol. in usual solvents; w. W. & acids reacts v. violently, & decomp. w. evol. of H.—USES: Reduc'g sulphates; autogenous reduction in manuf. radium & mesothorium.

Calcium Hydrochlorophosphate—Dry

Calcium Chlorhydrophosphate.—Wh. or yellowish powd.—SOL.: W.—ACTION: Tonic; Alterative.—USES: Tuberculosis, anemia, chlorosis, dyspep., scrofula, rachitis, & incip. phthisis.—DOSE: 0.06–0.2 Gm. (1–3 grn.) sev'l times per day.

do. —25% Solution

Colorl. to yellowish liq.—Misc.: w. W. all proport.—SP. GR.: 1.225 at 15°C .—ACTION & USES: As of preceding.—DOSE: 5–10 drops in W. sev'l t.p.d.

CALCIUM HYDROSULPHIDE—see Calcium Sulphhydrate

Calcium Hydroxide Merck—Powd.

Calcium Hydrate; Slaked Lime.— $\text{Ca}(\text{OH})_2 = 74.09$.—Wh. powd.; caustic taste.—**SOL.**: 900 cold, less so in hot, W.—**USES**: *Extern.*, as a depil.—*Techn.*, in fertilizers, mortars, plasters & cements; purifying sugar juices, softening water, dehairing hides, & in water paints; manuf. chlorinated lime, NaOH, KOH, intermediates, glues, etc.

do. —**Solution**—U.S.P. X; B.P.

Liquor Calcis; Lime-water; Solution of Lime or Calcium Hydroxide. Not less than 0.14% $\text{Ca}(\text{OH})_2$ —Colorl., clear liq.; slt alkal., saline taste.—**ACTION**: Antacid; Astring.; Tonic.—**USES**: *Intern.*, sour stomach, diar., dysent., gravel, diab., vomiting, dyspep., &c.—*Extern.*, linim. (us'ly w. linseed oil [Carron Oil]) on burns, &c.—**DOSE**: 15–120 cc. ($\frac{1}{2}$ –4 oz.).

CALCIUM HYDROXIDE, SOLUTION—see under Calcium Hydroxide

“**CALCIUM HYPOCHLORITE**”—see Lime, Chlorinated

Calcium Hypophosphite Merck—N.F.V

$\text{Ca}(\text{H}_2\text{PO}_3)_2 = 170.18$.—Wh. cryst.—**SOL.**: Slowly in 6.5 W. at 25° C., insol. A.; (8 W., B.P.).—**Decomp.** & evolves inflam. gas above 300° C.—**ACTION**: Tonic; Reconstructive; Antirachitic.—**USES**: Phth., rachitis, anemia, syph.; bronchitis, dyspep., scrofula, chlorosis, defective nutrit. of nerv. & bony tiss.; contraindicated in fever.—*Techn.*, as test f. As (Covelli).—**DOSE**: 0.2–1 Gm. (3–15 grn.); aver. dose, 0.5 Gm. (8 grn.).—*Subcut.*, 1 cc. (15 M) 10% solut. p.d.—**INCOMP.**: KI; oxidizers.—**CAUT.**: Keep well stoppered.

CALCIUM HYPOSULPHITE—see Calcium Thiosulphate

Calcium Iodate Merck

$\text{Ca}(\text{IO}_3)_2 + 4\text{H}_2\text{O} = 461.97$.—Wh. cryst.—**SOL.**: 380 W.; alm. insol. A.—**ACTION**: Antiseptic; Deodorant.—**USES**: *Intern.*, cystitis, skin dis. & ulcers; also as gastrointest. antisept.—*Extern.*, inst. of iodof. on cicatrizing surfaces, septic wounds, etc., as dust-powd.; also on wounds, & in mouth washes & gargles (1–3:100), fetid breath, angina, & diphth.—**APPL.**: 1:10 oint. & 3% gauze in ulcer cruris; as insufflat. in otorrhea (1:9 w. bism. subcarb.); warm, sat. solut. for irrig., & in 1:500 solut. as astring., deod., & antisept. vesical, urethral & vaginal douche; 2%–10% oint. in ecz. capitis in childr.—**DOSE**: 0.2–0.3 Gm. (3–5 grn.) sev'l t.p.d.

Calcium Iodide Merck

$\text{CaI}_2 = 293.91$.—Yellowish-wh., very hygrosce. powd.; decomp. by absorb'g CO_2 fr. air.—**SOL.**: v. eas. W., A.—**ACTION**: Alter.—**USES**: *Intern.*, inst. of KI in syph., hepatitis, scrofula, phth., albuminuria, asthma, struma, dyspep., etc.; in indolent & sluggish leg ulcer, syphilitic

necrosis, & syphilitic headaches; said to act better than the potass. salt.—*Extern.*, as 6%–12% oint. in glandular swellings, syph., etc.—*Techn.*, in photog.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.) 3 t.p.d.; in albuminuria, 0.4 Gm. (7 grn.) p.d. & increased grad'ly to 4 Gm. (60 grn.) p. day.—**CAUT.**: Keep in the dark in tightly stoppered bots.

Calcium Iodobehenate—U.S.P. X

Calioiben; Sajodin.—Chiefly $\text{Ca}(\text{C}_{21}\text{H}_{42}\text{IO}_2)_2 = 970.80$; cont's not less than 23.5% I after drying.—Wh. or yellowish powd.; odorl., or w. slt fat-like odor.—**SOL.**: Eas. warm C.; sltly A., E.; insol. W.—**ACTION & USES**: As of the iodides in syph., arteriosclerosis, gout, chron. bronchitis, lead poison'g, & chron. joint dis. etc.; said to be less prone to cause gastric disturbances.—**DOSE**: 1–3 Gm. (15–45 grn.) per day; aver. dose 0.5 Gm. (8 grn.).—**CAUT.**: Keep dark; prone to become yellow on exposure to light.

CALCIUM IODOSTEARATE—see Stearodine

CALCIUM KINATE—see Calcium Quinate

Calcium Lactate Merck—U.S.P. X

$\text{Ca}(\text{C}_3\text{H}_5\text{O}_3)_2 + 5\text{H}_2\text{O} = 308.26$.—Wh., odorl., alm. tastel. powd.—**SOL.**: 20 W. at 25° C., & alm. insol. A., U.S.P.—**ACTION**: Antirachitic; Hemostat; Blood Coagulant.—**USES**: Rach. & scrof. of childr. as syrup of calc. lactophos.; prophylactic bef. & after operative removal of adenoids & tonsils; epilepsy; lymphatic headache; chilblains; increase coagul. of blood; boils, bullous & vesicular erupt., hemoglobinuria, & aneurism; hemorrhage of upper air tract; hemophilia, purpura, tuberculosis, tetanus, albuminuria, hay fever, urticaria.—**DOSE**: 0.6–2 Gm. (10–30 grn.); aver. dose 0.5 Gm. (8 grn.). In lymphatic headache & chilblains, 1 Gm. (15 grn.) 3 t.p.d. To incr. blood coagul., 2–4 Gm. (30–60 grn.).—*Subcut.* in hemophilia, 0.12–0.25 Gm. (2–4 grn.); *intra-ven.* in tetanus, 0.2%–0.4% solut. in physiol. salt solut.

Calcium “Lactophosphate” Merck—N.F. V—Soluble—Powd.

Mixt. of variab. proport. of calc. lactate, calc. acid lactate, & calc. acid phosphate.—Wh., odorl. cryst. or powd.; cont. 1.5%–2% $\text{P}_2\text{O}_5 = 3\%$ –4% $\text{Ca}_3(\text{PO}_4)_2$.—**SOL.**: W.; alm. insol. A.—**ACTION**: Stim. & Nutrient.—**USES**: Rach. & conditions of malnutrit. in childr., & debility at puberty; adynamia, dyspep., fractures of bones, etc.—**DOSE**: 0.2–0.6 Gm. (3–10 grn.) 3 t.p.d.; aver. dose, 0.5 Gm. (8 grn.).

do. Merck—Insoluble—Powd.

Wh. powd.—**SOL.**: Partially in W.

CALCIUM MALATE, ACID—see Calcium Bimalate

Calcium Meconate

$\text{CaC}_5\text{HO}_2(\text{OH})(\text{COO})_2 + \text{H}_2\text{O} = 256.14$.—Yellowish-wh. powd.—**SOL.**: v. sltly W.

Calcium Methylsulphate

Calcium Sulphomethylate.— $\text{Ca}(\text{CH}_3\text{SO}_4)_2 = 262.25$.—Wh. cryst.—SOL.: W.

Calcium Molybdate

$\text{CaMoO}_4 = 200.07$.—Wh., cryst. powd.—SOL.: Mineral acids; insol. W., A., E.

Calcium Nitrate Merck—C.P.

$\text{Ca}(\text{NO}_3)_2 + 4\text{H}_2\text{O} = 236.15$.—Wh. fused masses or granules; v. deliquesce.—SOL.: Abt 1 W., A.—MELT.: Abt 43°C .

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.010%
Alkalies & Magnesium.....	0.20%
Barium.....	0.000%
Heavy Metals.....	0.000%

CAUT.: Keep well stoppered.

do. —Technical

USES: *Techn.*, in explosives & matches; pyrotechnics; fertilizers; manuf. incandesc. mantles.

Calcium Nitrite

$\text{Ca}(\text{NO}_2)_2 + \text{H}_2\text{O} = 150.10$.—Colorl. or yellowish, deliquesce. brittle lumps.—SOL.: W.; sltly A.—CAUT.: Keep well stoppered.

Calcium Oleate

$\text{Ca}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2 = 602.78$.—Yellow, gran. powd.—SOL.: A., E.—USES: In modeling waxes to vary hardness.

CALCIUM ORTHOPHOSPHATE—see Calcium Phosphate, Monobasic

CALCIUM ORTHOTUNGSTATE—see Calcium Tungstate

Calcium Oxalate Merck

$\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O} = 146.10$.—Wh. cryst.—SOL.: HCl, HNO_3 ; insol. W.

Calcium Oxide Merck—Reagent

Lime.— $\text{CaO} = 56.07$.—Wh. lumps or gran. powd.; sometimes has a yellowish or brownish tint (due to Fe present).—SOL.: Abt 800 W.

MAXIMUM OF IMPURITIES

Vol. Substcs.....	10.000%
Chloride (Cl).....	0.005%
Silicate (SiO_2).....	0.100%
Sulphate (SO_3).....	0.086%
Aluminum (Al_2O_3).....	0.250%
Magnesium (MgO).....	0.750%

USES: Determ'g H_3BO_3 ; alone or w. NaOH (as soda-lime) f. absorb'g CO_2 , estim'g N, Cl, S, & P in organic comp'ds; prep'g milk-of-lime; decomp'g silicates.

Calcium Oxide Merck—U.S.P. X; B.P.

Lime; Calx; Burnt Lime; Quick Lime.— $\text{CaO} = 56.07$.—Hard, wh. or grayish-wh., odorl. lumps; grad'ly crumble on expos. to air; when wet evolve heat & bec. "slaked".—SOL.: Dil. acids; 840 W. at 25°C ., 1740 boil. W., & also in G. &

syrup, & insol. A., U.S.P.—ACTION: Eschar.; Antacid.—USES: *Intern.*, in solut. (as lime-W. or syrup lime) to check nausea, in acid stom., & rachitis.—*Extern.*, as Vienna paste, in canc. growths, ulcers, &c.—The "technical" grade is used in fertilizers, manuf. chlorinated lime, insecticides, mortar, artif. stone, plaster, ceramics, etc.; vulcanizing rubber; purifying intermediates; deodorizing vegetable oils; dehairing hides; purifying potable water; sewage treatment, etc.—CAUT.: Keep fr. air. Avoid getting particles in the eyes.

Calcium "Oxysulphide"

Mixt. $\text{Ca}(\text{OH})_2$ & S.—Yellowish-wh. powd.—USES: In aq. 1:4 solut. (Vlemincx' Solution), as wash for scrof. ulc., scabies, psoriasis, prurigo, chron. ecz., etc.

CALCIUM OXYSULPHIDE, SOLUTION—see under Calcium Sulphide, Crude

Calcium Palmitate

$\text{Ca}(\text{C}_{16}\text{H}_{31}\text{O}_2)_2 = 550.73$.—Wh. or yellowish-wh. powd.—SOL.: v. sltly A., insol. W.—USES: Thickening lubricating oils; manuf. solidified oils; waterproofing fabrics.

CALCIUM PARATUNGSTATE—see Calcium Tungstate, Precipitated

Calcium Perborate—B.P.C.

Approx. $\text{Ca}(\text{BO}_3)_2 \cdot 7\text{H}_2\text{O} = 283.98$.—Bulky, rather unstable powd.; grad'ly loses active O.—SOL.: W. w. part. decomp.—ACTION: Disinfectant.—USES: As of sod. perborate; also in tooth powders.

Calcium Permanganate Merck

$\text{Ca}(\text{MnO}_4)_2 + 5\text{H}_2\text{O} = 368.01$.—Violet cryst.—SOL.: Eas. W.—ACTION: Antisept.; Disinfectant; Deodorizer.—USES: *Intern.*, in chron. & acute gastro-intest. dis., gastric ulcer, cholera, lead poison'g, & diar. of childr.—*Extern.*, rodent ulcers, inoperable carcinoma, & f. mouth lotions bef. & after tooth extraction; as 0.04–0.3:1000 solut. in iodide & bromine acne; pultaceous angina (0.5%–1% solut. painted on); also steriliz'g hands f. operations (0.3–0.5:1000), in gynecol. (0.15–0.3:1000 by inj.); in urethral irrig. (0.2:1000), & in blenorrhic conjunctivitis (0.35:1000) as wash; powerful disinf. (100 times stronger than KMnO_4 , & exceed. even corros. subl. as antisept.). Chiefly used f. sterilizing water f. drinking purposes. Abt 0.02 Gm. per liter ($\frac{1}{2}$ grn. per quart) of well water, 0.04 Gm. per liter ($\frac{2}{3}$ grn. per quart) of running water.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).—CAUT.: Keep well stoppered.

Calcium Peroxide Merck

Calcium Dioxide, or Superoxide.— $\text{CaO}_2 + 8\text{H}_2\text{O} = 216.20$.—Wh., cryst. powd.—SOL.: Sltly W. w. evol. of O.—ACTION: Antacid; Antisept.—USES: *Intern.*, inst. of milk-of-lime in acid dyspep. & in the summer diar. of infants.—*Techn.*, as constit. of tooth powd.—DOSE: For childr., 0.2–0.6 Gm. (3–10 grn.) accord. to age.

Calcium Phenate

Calcium Carbolate.— $\text{Ca}(\text{OC}_6\text{H}_5)_2 = 226.21$.—Reddish powd.—**SOL.**: Sltly in W. & A.—**ACTION**: Antisep.—**USES**: As intern. & extern. antisep.; also f. disinf. sick-room utensils, privies, &c.—**DOSE**: 0.12–0.3 Gm. (2–5 grn.) sev'l t.p.d.

CALCIUM PHENOLSULFONATE—see Calcium Sulphocarbonate

Calcium Phosphate Merck—Dibasic—C.P.

Dicalcium Orthophosphate; Bicalcic Phosphate; Secondary Calcium Phosphate.— $\text{CaHPO}_4 + 2\text{H}_2\text{O} = 172.15$.—**Wh.**, cryst. powd.—**SOL.**: Acids; alm. insol. W.

MAXIMUM OF IMPURITIES

Carbonate (CO_3).....	0.02%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.020%
Arsenic (As).....	0.001%
Heavy Metals.....	0.001%

USES: Experimental soil fertilization & also in feeding investigations.

do. Merck—Dibasic—Pure

DESCRIPT. & SOL.: As preceding.—**ACTION**: Antacid; Hemostat.—**USES**: Source of P or phosphates f. system, in bone dis., rach., osteomalacia, caries, diffic. dentition, anemia, atrophy, tubercul., gout, oxaluria, scrofulous & syphil. sores; promot. callus formation; chlorosis, fungous inflam. of joints, &c.; also in hemoptysis, profuse leucorrh., & in dentistry.—**DOSE**: 0.5–2 Gm. (8–30 grn.) sev'l t.p.d.; children, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) f. ea. year of age.—**In VETER. MED.**, horses, 10–25 Gm. (2½–6 dr.); cattle, 20–50 Gm. (5–12½ dr.); colts, calves, 10–20 Gm. (2½–5 dr.); sheep, goats, pigs, 2–5–15 Gm. ($\frac{1}{2}$ –1¼–4 dr.); dogs, & cats, 0.5–4 Gm. (8–60 grn.); hens & pigeons 0.5–1 Gm. (8–15 grn.).

Calcium Phosphate Merck—Monobasic—C.P.

Calcium Biphosphate or "Superphosphate"; Acid Calcium Phosphate; Monocalcium, or Primary Calcium, Phosphate or Orthophosphate.— $\text{CaH}_4(\text{PO}_4)_2 + \text{H}_2\text{O} = 252.20$.—**Wh.** deliquesce. cryst., granules, or cryst. powd.—**SOL.**: Decomp. by W. into salt richer in Ca, & a strongly acid liq.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.02%
Arsenic (As).....	0.001%
Heavy Metals.....	0.001%
Magnesium (Mg).....	0.05%

do. Merck—Monobasic—Powd.

DESCRIPT. & SOL.: As preceding.—**USES**: *Intern.*, chlorosis, rach., tubercul., bone fractures, etc.—*Techn.*, with NaHCO_3 in baking powd.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.); children, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) f. ea. year of age.—**CAUT.**: Keep well stoppered.

Calcium Phosphate Merck—Tribasic—C.P.

Tertiary Calcium Phosphate; Tricalcium Orthophosphate.— $\text{Ca}_3(\text{PO}_4)_2 = 310.29$.—**Light**,

wh., amorph., odorl., tastel. powd.—**SOL.**: HCl or HNO_3 ; insol. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO_3).....	0.030%
Arsenic (As).....	0.001%
Barium (Ba).....	0.002%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

do. Merck—Tribasic—N.F. V—Precip.

DESCRIPT. & SOL.: As preced'g.—**USES**: *Intern.*, as of calc. phosphate dibasic, in bone dis., & disturbances of nutrition; also in peptic ulcer as stly constipating antacid; also in cattle foods, toothpastes & tooth-powders.—**DOSE**: 0.5–1.3 Gm. (8–20 grn.) us'ly w. acids; in peptic ulcer, 0.6–1.6 Gm. (10–25 grn.) ev. hour; aver. dose 1 Gm. (15 grn.) ev. hr; children, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) f. ea. year of age.

do. —Tribasic—Technical—Precip.

"Bone Ash."—**USES**: Manuf. milk-glass, polishing powd.; enameling; clarifying sugar syrups; manuf. rubber, porcelains, pottery, etc.

CALCIUM PHOSPHATE, ACID—see Calcium Phosphate, Monobasic

Calcium Phosphate Antimoniated

James' Powder.—**Mixt.** of 1 part antimonous oxide & 2 parts precip. calc. phosphate.—Greenish-gray, odorl., tastel., gritty powd.—**Insol. W.**—**ACTION**: Diaphor.; Alter.; Purg., & Emetic.—**USES**: Acute rheum., catarrh, chron. skin dis., febrile dis., &c.—**DOSE**: 0.2–0.5 Gm. (3–8 grn.) 4–6 t.p.d., us'ly w. opium; larger doses purge.

CALCIUM PHOSPHATE, PRIMARY—see Calcium Phosphate, Monobasic

CALCIUM PHOSPHATE, SECONDARY—see Calcium Phosphate, Dibasic

CALCIUM PHOSPHATE, TERTIARY—see Calcium Phosphate, Tribasic

Calcium Phosphide Merck

Photophor.— $\text{Ca}_3\text{P}_2 = 182.29$.—Reddish-brown lumps; decomp. on contact w. W. generat. H_3P which takes fire in air.—**USES**: Signal fires.

Calcium Phosphate

$\text{CaHPO}_3 + \text{H}_2\text{O} = 138.13$.—**Wh.** powd.—**SOL.**: v. stly W.; decomp. by boil. W.

Calcium Phthalate

$\text{CaC}_4\text{H}_4(\text{COO})_2 + \text{H}_2\text{O} = 198.15$.—**Wh.** prisms.—**SOL.**: W.

CALCIUM PLATINOCHLORIDE—see Platinum & Calcium Chloride

CALCIUM PLATINOCYANIDE—see Platinum & Calcium Cyanide

Calcium Plumbate

$\text{Ca}_2\text{PbO}_4 = 351.34$.—Flesh-colored powd.—**SOL.**: Acids w. decomp.—**USES**: Oxidizer; in pyrotechn. inst. of chlorates; in safety matches, manuf. lead-calcium glass, bleaching, manuf. storage batteries, & as source of O.

Calcium Propionate

$\text{Ca}(\text{C}_3\text{H}_5\text{O}_2)_2 = 186.18$.—Wh. powd.—SOL.: W.
—USES: Manuf. methylethylketone.

Calcium Pyrophosphate Merck

$\text{Ca}_2\text{P}_2\text{O}_7 = 254.22$.—Wh. powd.—SOL.: HCl, HNO_3 ; insol. W.

Calcium Quinate

Calcium Chinate, or Kinate.—One of the constituents of cinchona bark.— $\text{Ca}(\text{C}_7\text{H}_{11}\text{O}_6)_2 + 10\text{H}_2\text{O} = 602.48$.—Wh. cryst.—SOL.: 6 W.

Calcium Resinate

Approx. $\text{Ca}(\text{C}_{44}\text{H}_{62}\text{O}_4)_2 = 1349.50$.—Fr. $\text{Ca}(\text{OH})_2$ & rosin.—Yellowish wh. amorph. lumps or powd.—SOL.: Acids; insol. W.—Uses: Water-proofing; paint driers; varnishes.

CALCIUM RHODANIDE—see Calcium Sulphocyanate**"Calcium Saccharate" Merck**

Saccharated Lime; Antacidin.—Wh. powd.—SOL.: Slowly but clearly in W.—ACTION: Antacid; Teniafuge.—USES: *Intern.*, dyspep., flatulence, rachitis, chron. diar., &c., in children; antid. to phenol, cresol, oxalic acid.—*Extern.*, w. glycerin in burns.—*Techn.*, preserving, & in drying milk.—DOSE: 0.6–2 Gm. (10–30 grn.); children abt half as much.—In phenol poisoning doses up to 10 times as much must be given.

Calcium Salicylate Merck

$\text{Ca}(\text{C}_6\text{H}_4.\text{OH}.\text{COO})_2 + 2\text{H}_2\text{O} = 350.25$.—Wh., odorl., tastel. cryst.—SOL.: Slowly in abt 25 cold, more eas. hot, W.—USES: Gastroenteritis, summer diar. of childr.—DOSE: 0.5–1.5 Gm. (8–23 grn.).

Calcium Santoninate

$\text{Ca}(\text{C}_{15}\text{H}_{19}\text{O}_4)_2 = 566.52$.—Wh., cryst. powd.—SOL.: Sltly W.—ACTION: Anthelmintic.—USES: Inst. of santonin; anthelmintic action questionable.—DOSE: 0.03–0.1 Gm. ($\frac{1}{2}$ – $1\frac{1}{2}$ grn.).

Calcium Silicate Merck

Wh., amorph. powd.—Insol. W.—USES: In impalpable powd. by inhal'n in pulmon. tuberc.

Calcium Silicofluoride

$\text{CaSiF}_6 + 2\text{H}_2\text{O} = 218.20$.—Wh. powd.—SOL.: v. sltly W.

Calcium Stearate

Calcium Stearate.— $\text{Ca}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 = 606.81$.—Wh., pulv. mass.—SOL.: Sltly hot A.; insol. W.—USES: Waterproofing.

CALCIUM STEARINATE—see Calcium Stearate**Calcium Succinate Merck**

$\text{CaC}_4\text{H}_4\text{O}_4 + 3\text{H}_2\text{O} = 210.17$.—Wh. cryst.—SOL.: v. sltly W.

Calcium Sulphate Merck—C.P.

$\text{CaSO}_4 + 2\text{H}_2\text{O} = 172.16$.—Wh. powd. or pulverulent pieces.—SOL.: Abt 400 W. (solub'ty increased by HCl or HNO_3); insol. A.

MAXIMUM OF IMPURITIES

Insol. in HCl.....	0.050%
Chloride (Cl).....	0.005%
Alkalies & Magnesium.....	0.20%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: Detect'g Ba & Sr; test f. oxalic acid in tartaric acid; standardizing soap solut's; reag. f. Na_2CO_3 in NaHCO_3 or borax (Leys); resorcin (Bornträger), & fumaric acid (Delffs).

do. Merck—Precipitated

Artificial Gypsum; Hydrated Calcium Sulphate.— $\text{CaSO}_4 + 2\text{H}_2\text{O} = 172.16$.—Wh. powd.—SOL.: As of preced'g.—USES: *Intern.*, phosphaturia.—*Techn.*, as white pigment; as filler & glaze in paper manuf.; in cements, fertilizers, insecticides; manuf. small statues, plaster, molds, artif. ivory, polishing powd.; plastering wines, &c.—DOSE: 0.5 Gm. (8 grn.) 3–4 times per day.

do. Merck—U.S.P. VIII, Dried—Powd.

Dried Gypsum; Plaster of Paris.— $\text{CaSO}_4 + \text{abt } \frac{1}{2}\text{H}_2\text{O} = 145.15$.—Fine, wh., odorl., tastel. powd.; 93% of anhyd. CaSO_4 & abt 7% W.—SOL.: Boil'g dil. mineral acids; sltly W.; insol. A.; when mixed w. W. sets to a hard mass.—USES: *Extern.*, as dust'g powd. in confluent variola w. putrid secretion & severe itch'g; making plaster bandages f. fractures, wounds, &c.—*Techn.*, in fertilizers, paints, statuary, fireproof bricks, moldings, plaster casts, etc.

CALCIUM SULPHATE, HYDRATED—see Calcium Sulphate, Precipitated**Calcium Sulphide Crude Merck—U.S.P. IX**

"Sulphurated Lime"; "Calcic Liver of Sulphur"; Liver of Lime; Hepar Calcis.—Not less than 55% CaS; cont's CaSO_4 .—Yellowish to pale gray powd.; odor of H_2S in moist air; unpleas. alkal. taste; decomposes on expos. to moist air.—SOL.: Very sltly cold W.; more read. in boil. W., w. part decomp.; eas. in soluts. of NH_4 salts; insol. A.—ACTION: Antipyrret.; Alter.; Depil.—USES: *Intern.*, prophylactic in influenza; boils, acne, scrofula, carbuncles; inflamm. dis. of air passages; phthisis, smallpox, erysipelas; typhoid, scarlet fever, & measles.—*Extern.*, 6%–12% oint. & 5% wash in acne, furuncular erup., & scrofulous ulcers.—*Techn.*, in Hahnemann's wine test; as depilatory in tanning, &c.—DOSE: 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.) ev. 2 hrs; in skin dis., 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); in tonsillitis etc. 0.06 Gm. (1 grn.) ev. 15 min.; as prophylactic f. influenza, 0.06 Gm. (1 grn.) p.d.—In measles, erysip., & scarlet fever, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) single, & 2–2.6 Gm. (30–40 grn.) daily.—INJ.: As antidote in HgCl_2 poisoning, 0.06 Gm. (1 grn.) diss. in 30 cc. (1 fl. oz.) water (not w. NaCl) intravenously f. ev. 0.06 Gm. (1 grn.) HgCl_2 supposed to have been swallowed, & also 0.06 Gm. (1 grn.) intern. ev. hr f. sev'l days. The solut. should be absolutely clear (filtered thro. cotton).—Also in baths (60–120 Gm. [2–4 oz.] per bath).—VETER. MED., f. itch mite in dogs, 60–120 Gm. (2–4 oz.) as a bath, & as 10% oint. f. acne, furuncles, etc.—CAUT.: Keep well stoppered.

Calcium Sulphide Merck—Luminous

Specially prep'd f. making luminous paints, varnishes, etc.

Calcium Sulphite Merck—Pure

$\text{CaSO}_3 = 120.13$.—White powd.—**SOL.**: Abt 800 W.; more eas. in solut. SO_2 .—**ACTION**: Antisep.—**USES**: *Intern.*, flatul., diar., dyspep.; acute tonsil. to check pus, relieve pains & reduce temp.—*Extern.*, in mouth washes & oint.—*Techn.*, preserv'g cider & other fruit juices (150 Gm. [5 oz.] per bbl. [abt 50 gals.]).—**DOSE**: 0.06–0.3 Gm. (1–5 grn.); in tonsil., 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).

do. Merck

Wh. powd.—Evolves SO_2 w. acids.—**USES**: Disinf. in brewing as addition to beer; as applic. to insides of brewing vats; antichlor in bleaching inst. of Na_2SO_3 in sugar manuf.; preservative; rendering solut. SO_2 stable.

Calcium Sulphocarbonate

Calcium Phenolsulphonate, or Sulphophenate, or Sulphophenolate.— $\text{Ca}(\text{C}_6\text{H}_4[\text{OH}]\text{SO}_3)_2 + \text{H}_2\text{O} = 404.45$.—Wh. to pinkish powd.—**SOL.**: W., A.—**ACTION**: Intest. Antisep. & Astring.—**USES**: Cholera nostras, infect. diar., obstin. dysentery, intest. ulc., &c.—**DOSE**: 0.3–1 Gm. (5–15 grn.) in 1% aqu. solut.

Calcium Sulphocyanate

Calcium Sulphocyanide, or Rhodanide.— $\text{Ca}(\text{SCN})_2 + 3\text{H}_2\text{O} = 210.27$.—Wh., hygrosc., cryst. powd.—**SOL.**: v. eas. W. & hot A.

CALCIUM SULPHOCYANIDE—see Calcium Sulphocyanate

CALCIUM "SULPHOICHTHYOLATE"—see Sulphoichthyolate (Calcium)

CALCIUM SULPHOMETHYLATE—see Calcium Methylsulphate

CALCIUM SULPHOPHENATE } see Calcium Sulphocarbonate
CALCIUM SULPHOPHENOLATE }

CALCIUM SULPHOVINATE—see Calcium Ethylsulphate

Calcium Sulphydrate

Calcium Hydrosulphide.— $\text{Ca}(\text{HS})_2 = 106.21$.—Colorl., transp. cryst.; decomp. in air.—**CAUT.**: Keep well stoppered.

CALCIUM SUPEROXIDE—see Calcium Peroxide

CALCIUM SUPERPHOSPHATE—see Calcium Phosphate, Monobasic

Calcium Tannate

Yellowish-gray powd.—**SOL.**: Dil. acids; v. sltly. W.

Calcium Tartrate Merck

$\text{CaC}_4\text{H}_4\text{O}_6 + 4\text{H}_2\text{O} = 260.19$.—Wh. powd.—**SOL.**: v. sltly W.

CALCIUM TARTRATE, ACID—see Calcium Bitartrate

Calcium Thiosulphate

Calcium Hyposulphite.— $\text{CaS}_2\text{O}_3 + 6\text{H}_2\text{O} = 260.29$.—Wh. cryst.—**SOL.**: v. eas. W.—**ACTION**: Antisep.—**USES**: Internal antiseptic in

gastrointest. fermentative affect., phth., skin dis., etc.—**DOSE**: 0.6–1.3 Gm. (10–20 grn.) 3 t.p.d.

Calcium Trichlorophenate

Calcium Trichlorcarbolate.— $\text{Ca}(\text{C}_6\text{H}_2\text{Cl}_3\text{O})_2 + 4\text{H}_2\text{O} = 504.99$.—Wh. crystalline powd.—**SOL.**: Sltly W., A.

Calcium Tungstate Merck—Small Cryst., for X-Ray Screens

Calcium Orthotungstate; Normal Calcium Wolframate.— $\text{CaWO}_4 = 288.07$.—Artif. Scheelite.—Shining, tetragonal, cryst. scales.—**INSOL.** W.—**USES**: Preparing screens f. taking photographs by the Roentgen rays. The small cryst. are also used by inj. into malignant tumors, etc. & thus afford by transillumination an excellent source of X-ray treatment.

do. Merck—Precipitated

Calcium Paratungstate.— $\text{Ca}_3\text{W}_7\text{O}_{24} + 18\text{H}_2\text{O} = 2116.50$.—Wh. powd.—**INSOL.** W.—**LUMINOUS** in the dark.—**USES**: Luminous paints.

Calcium Urate

$\text{Ca}(\text{C}_5\text{H}_3\text{N}_4\text{O}_3)_2 + 2\text{H}_2\text{O} = 410.26$.—Wh. powd.—**SOL.**: v. sltly W.

Calcium iso-Valerate

Calcium Valerianate.— $\text{Ca}(\text{C}_5\text{H}_9\text{O}_2)_2 + 3\text{H}_2\text{O} = 296.31$.—Wh., cryst. powd.—**SOL.**: W.

CALCIUM VALERIANATE—see Calcium iso-Valerate

CALCIUM WOLFRAMATE, NORMAL—see Calcium Tungstate

Calcium & Antimony Sulphide

Gray powd.; a mixt. of CaO & Sb_2O_3 (?)—**SOL.**: Partially W. w. decomp.—**USES**: *Intern.*, in chronic metallic poisoning.—*Extern.*, in mouthwashes & washes in 1% solut.; & mixed w. W. to paste as depilatory.—**DOSE**: 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.).

Calcium & Iron "Lactophosphate" Merck—Soluble

Calcium phosphate w. ferrous lactate.—Wh. or sltly yellowish powd.—**SOL.**: partly in W.—**ACTION**: Mild Chalybeate.—**USES**: Rachitis, chlorosis, anemia, & scrof.; also in prepar. syrup calc. & iron lactophos. (calc. & iron lactophos., 6 Gm., warm W. 30 Gm., & syrup 70 Gm.).—**DOSE**: 0.2–0.5 Gm. (3–8 grn.), sev'l t.p.d.

CALCIUM & MAGNESIUM ANHYDROMETHYLENE-DIPHOSPHATE—see Phytin

Calcium & Magnesium Phosphate

Mixt. of calcium & magnesium phosphates.—Wh. powd.—**INSOL.** W.

Calcreose

Loose chem. combination of approx. equal wts creosote & lime.—Dark brown powd.; empyreum. odor; sharp phenolic taste (N.N.R.).—**SOL.**: Partly in W.—**USES**: As of creosote; claimed not to cause gastric distress, nausea, or vomit.—**DOSE**: 0.25–1 Gm. (4–15 grn.) ev. 2–4 hrs.—Also mkt'd in 4.54% solut. which is given in doses 4–8 cc. (2–4 fl. dr.).

Calendula—N.F. V; B.P.C.

Marigold; Mary-bud; Gold-bloom.—Dried, ligulate florets of *Calendula officinalis*, L., Compositæ.—HABIT.: Southern Europe & Levant; cultivated everywhere in gardens.—CONSTIT.: Volat. oil; calendulin, bitter principle; coloring matter.—ACTION: Stim.; Diaphor.; Resolv.; Vulner.; Alter.—USES: *Intern.*, typhoid fever & carcinoma; amenorrhea.—*Extern.*, f. wounds & sores.—*Techn.*, coloring butter, & as adulterant of saffron.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose 1 Gm. (15 grn.).—Alcoh. extr., 0.12–0.36 Gm. (2–6 grn.).—Fl'dextr., 1–2 cc. (15–30 M); *extern.*, pure or diluted, as appl. to sores, bruises, &c.—Tr. (1:5, N.F.; B.P.C.) 2–4 cc. (30–60 M).

CALIOBEN—see Calcium Iodobehenate

CALISAYA BARK—see Cinchona

Calliandrein

Glucoside (probably a saponin) fr. *Calliandra grandiflora*, a Mexican shrub.—Wh. odorl. powd.—SOL.: W.; the solut. foams on being shaken.—ACTION: Antipyretic.—USES: Intermittent fever.—DOSE: 0.06 Gm. (1 grn.).

Calomal

Urethane-Calcium Bromide.— $\text{CaBr}_2 \cdot 4\text{CO}(\text{N}_2\text{H}_2\text{O})\text{C}_2\text{H}_5 + 2\text{H}_2\text{O} = 592.26$.—Wh., cryst. powd., or prismatic cryst.; 27% Br.—SOL.: Eas. W., A.—MELT.: 107°–107.5° C.—ACTION: Hypnot.; Sed.—USES: Depression, anxiety, epilepsy, nervousness, etc.—DOSE: 0.5–2 Gm. (8–30 grn.) 3 t.p.d.

CALMUS—see Calamus

Calomel Merck—C.P.

Mercurous Chloride; Mercury Subchloride, or Monochloride, or Protochloride.— $\text{HgCl} = 236.06$.—Impalp., dense, wh., odorl., tastel., light-sensit., heavy powd.—Insol. W. A., E.—SUBL.: Abt 383° C., without melt.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.02%
Mercury Bichloride (HgCl_2)...	0.00%
Sulphate (SO_3).....	0.03%

USES: Detect'g cocaine (Flückiger; Schell), glucose (Jaworowski), pilocarpine (Lenz), $\text{Na}_2\text{S}_2\text{O}_3$ (Musset), SCN (Polacci), & free alkali (Stoss); I; also in electrolysis as the calomel electrode.

CALOMEL, COLLOIDAL } see Calomelol
CALOMEL, SOLUBLE }

Calomelol

Colloidal, or Soluble, Calomel.—Whitish-gray, odorl., tastel. powd.; 80% HgCl & 20% proteids.—SOL.: W., affording an opalesc. suspens. insol. in A., B., E., & pptd by acids but rediss. by alkalis (N.N.R.).—ACTION: Antispyphil.—USES: *Intern.*, like calomel.—*Extern.*, in syphil. ulcers as dust. powd.; 2% dressing; & as 45% oint. by inunction in syphil. in quant. of 4–6 Gm. (60–90 grn.).—CAUT.: Keep fr. light in amber bot.

Calumba—U.S.P. X; B.P.; Fr. Cod.

Colombo.—Root of *Jateorrhiza palmata* (J. Columba) Miers, Menispermaceæ.—HABIT.: Eastern Africa.—CONSTIT.: Columbin; palmitine; jateorrhizine; cumbic acid; columbamine; cholesterol; mucilage.—ACTION: Tonic; Astring.; Stomachic; Stim.; Anthelm.—USES: Dyspep., debil., flatulence, diarrh., &c.—DOSES: 0.3–4 Gm. (5–60 grn.); aver. dose 1 Gm. (15 grn.).—Alcoh. extr., (dry) 0.12–0.6 Gm. (2–10 grn.); (soft) 0.25–1.3 Gm. (4–20 grn.).—Conc. solut., 2–4 cc. (30–60 M).—Conc. infus., (1:10), 2–4 cc. (30–60 M).—Fl'dextr., 1–2 cc. (15–30 M).—Tr. (1:5) 2–4 cc. (30–60 M).

CALUMBA, CEYLON, or FALSE—see Coscinium

CALX—see Calcium Oxide

CAMBOGIA—see Gamboge

CAMGANIBA—see Manaca

CAMPHANOL—see Borneol

Camphocol

$\text{C}_{24}\text{H}_{38}\text{O}_4 \cdot \text{C}_{10}\text{H}_{16}\text{O} = 542.60$.—Addit'n product of apocyclic acid & camphor.—Colorl. cryst.; faint camphor odor.—SOL.: Eas. dil. solut. Na_2CO_3 ; insol. W.—MELT.: 178°–180° C.—ACTION & USES: As of camphor.—DOSE: 1 capsule (as mkt'd, & each = 0.0028 Gm., camphor) 3–5 t.p.d. after meals.

CAMPOL—see Borneol

CAMPOL-MENTHOL—see Menthol Camphorated

Camphor—U.S.P. X; B.P.; Fr. Cod.

Gum Camphor; Formosa, or Japan, Camphor; Laurel Camphor.—Dextrogyrate modif. of the saturated ketone, $\text{C}_9\text{H}_{16}\text{O} = 152.18$, fr. *Cinnamomum* (Laurus, L.) *Camphora*, Nees & Ebermaier, Lauraceæ.—HABIT.: Java, Sumatra, Japan, Formosa, Brazil, & o. tropical & subtropical countries.—Wh., transluc. masses w. numerous cracks; easily broken, but diffic. to powd.—SOL.: Abt 800 W., 1 A., 0.5 C., 1 E., at 25° C., & freely in CS_2 , petrol. E., & oils, U.S.P.; 1.5 oil turpent., 0.5 glac. acetic acid.—MELT.: 174°–177° C., U.S.P.—Sp. Gr.: Abt 0.990 at 25° C., U.S.P.; abt 0.995 at 15.5° C., B.P.—ACTION: Stim.; Diaph.; Sed.; Expector.; Antisep.; Analges.; Antiprur., & Carmin.—USES: *Intern.*, in conditions of collapse, typhoid, cholera, dysentery, cardiac weakness & circulatory disturbances, pneumonia, delirium tremens, nerv. diar., flatul., colic, headache, rheum., gout, chordee, spasmodic cough, asthma.—*Subcut.*, in olive oil solut. in phth. & pneumococcic pneumon.—*Extern.*, in neural., toothache, indol. ulc., paras. skin dis., coryza, &c.—*Techn.*, manuf. of celluloid films, explosives; repelling moths & other insects, tooth powd.; embalming; pyrotechn.; lacquers & varnishes.—DOSE: *Intern.*, stim. 0.06–0.3 Gm. (1–5 grn.); sedat., 0.5–0.8 Gm. (8–12 grn.); aver. dose by mouth or subcut., 0.2 Gm. (3 grn.).—*Subcut.*, 0.06–0.2 Gm. (1–3 grn.).—MAX. D.: 1.3 Gm. (20 grn.).—Spirit (1:10), 0.3–1.3 cc. (5–20 M.).—Co. Tinct. (B.P.) 2–4 cc. (30–60 M).—

Water, 8–30 cc. (2–8 fl. dr.).—INJ., subcut. in 1:10 oily or ether. solut. as analeptic.—APPL.: In 1%–2% oint. or dust. powd.; f. inhal. in coryza, teaspoon. to cup of boil. W.—In VETER. MED. in horses, in pneumon. & in colic; extern. in phlegmons, tendovaginitis, wounds, & ulcers. *Horses & cattle*, 5–15 Gm. (1¼–4 dr.); *goats, pigs, sheep & dogs* 0.5–2 Gm. (8–30 grn.); *cats*, 0.05–0.3 Gm. (¾–5 grn.).—INCOMP.: Butylchloral hydrate, phenol, chloral hydrate, menthol, betanaphthol, resorcinol, salol, salicylic acid, thymol, or urethane, in dry trituration; potass. permang. Camphor water is incompatible w. conc. solut. of salts.—ANTID.: Emetics followed by castor oil, alcohol hypoderm.; ether by inhalation.

Camphor—Solution, Accord. to Leo

Sterile 0.142% solut. of camphor in Ringer's fluid (=1:500 at 15° C.).—ACTION: Stim.—USES: Intravenously in pneumococcus infect. & pulmon. tuberc.; also in asthma.—DOSE: 150–200 cc. (5–6½ fl. oz.) = 0.21–0.28 Gm. (3½–4⅔ grn.) camphor.—As much as 250–350 cc. (8–11½ fl. oz.) have been inj. intraven. without local reaction.

do. —Synthetic

C₁₀H₁₆O = 152.18.—Optic. inactive prod. obt. fr. pinene hydrochloride (bornyl chloride) by splitting off HCl; or by action of organ. acids on turpentine oil & subseq. decomp'n w. alkalies; or fr. borneol or isoborneol by oxid'n.—Wh. powd. or cakes.—SOL.: Eas. A., C., E., oils; v. sltly W.—MELT.: 178° C.—USES & DOSES: As of ordinary camphor.

CAMPHOR, ALANT—see Helenin

CAMPHOR, ANEMONE—see Anemonin

CAMPHOR, ANISE—see Anethol

CAMPHOR, ARTIFICIAL—see Terpene Hydrochloride

CAMPHOR, ASARABACCA } see Asaron
CAMPHOR, ASARUM }

CAMPHOR, BAROS—see Borneol

Camphor Benzoated

Mixt. benzoic acid & camphor.—Wh. powd.—SOL.: A., E., C.—ACTION: Antiseptic.—USES: *Extern.*, inst. of camphor & benzoic acid.

CAMPHOR, BITTER-ALMOND-OIL—see Benzoin

CAMPHOR, BORNEO—see Borneol

CAMPHOR, BROMATED, or BROMINATED—see Camphor, Monobromated

CAMPHOR, CANTHARIDES—see Cantharidin

CAMPHOR, CARBOLATED—see Camphor, Phenolated

CAMPHOR, CHAMPACA—see Champacol

Camphor Citrated

Mixt. of citric acid & camphor.—Wh. powd.—ACTION: Antiseptic; Antispasm.; Stim.—USES: Flatulence, colic, diar., rheum., & spasmodic cough.—DOSE: 0.2–0.6 Gm. (3–10 grn.)

Camphor Dibromated

Alphadibromcamphor.—C₁₀H₁₄Br₂O = 310.00.—Fr. monobromated camphor, Br, & CHCl₃.—Wh. to yellowish cryst.—SOL.: A., E.—MELT.: 61° C.—ACTION: Antiseptic.

CAMPHOR, ELECAMpane—see Helenin

CAMPHOR, FORMOSA—see Camphor

CAMPHOR, INULA—see Helenin

CAMPHOR, JAPAN } see Camphor
CAMPHOR, LAUREL }

CAMPHOR LINIMENT—see Oil, Camphorated

CAMPHOR, MALAYAN—see Borneol

Camphor Monobromated Merck—U.S.P. IX—Cryst. or Powd.

Bromated, or Brominated, Camphor; Bromcamphor.—C₁₀H₁₅BrO = 231.09.—Fr. Br & camphor by heat.—Colorl., prismat. cryst. or powd.; camphor. odor & taste.—SOL.: 6.5 A., 1.6 E., 0.5 C., at 25° C., alm. insol. W., U.S.P.; also in olive oil, sltly G.—MELT.: 74°–76° C.—BOIL.: 274° C.—ACTION: Sopor.; Antineural.; Sedat.; Antispasm.—USES: Delir. trem., hyst., insom., spermator.; convuls., irrit. of dentit., chorea, infant. diar., whoop-cough, epilepsy, neural., migraine, nervous heartbeat, &c.; w. codeine f. morphine habit.—DOSE: 0.12–0.5 Gm. (2–8 grn.) sev'l t.p.d., in pill or emulsion; aver. dose 0.12 Gm. (2 grn.). In delirium tremens as much as 1–1.5 Gm. (15–23 grn.) have been given. As antidote in strychnine poison'g 1–2 Gm. (15–30 grn.) 2–3 times.—*Subcut.*, 0.1 Gm. (1½ grn.) in oil.—INCOMP.: Phenol, chloral hydrate, salol, menthol, or thymol, in trituration.

Camphor Monochlorated

C₁₀H₁₅ClO = 186.63.—Yellowish-wh., cryst. powd.—SOL.: A., E.—MELT.: 124°–125° C.—BOIL.: 220° C. w. slt decomp'n.

CAMPHOR, NAPHTHOL, or NAPHTHYLATED—see Betanaphthol, Camphorated

CAMPHOR, PARSLEY—see Apiol

CAMPHOR, PEPPERMINT—see Menthol

Camphor Phenolated Merck

Carbolated Camphor; Camphorated Phenol.—Mixt. eq. wts camphor & phenol.—Colorl. to faintly-yellow, oily liq.; arom. odor.—SOL.: A., C., E., fatty oils; insol. W.—ACTION: Antiseptic; Antiprur.; Local Anesth.; Carmin.—USES: *Intern.*, dyspep., flatul., &c.—*Extern.*, Undiluted, or in 50% oily solut., as brush applic., bandage, etc. in toothache, neural., erysip., ulcer of leg, anal fissure, fistulas, abscesses, furunc., &c. Hypoderm., first causes burn. sensation, then anesthesia.—DOSE: 0.3–0.6 cc. (5–10 M), in caps.

CAMPHOR, PULSATILLA—see Anemonin

Camphor Salicylated

Abt 43% salicylic acid & 56% camphor.—Wh. powd.—SOL.: A., oils.—ACTION: Antiseptic; Astring.—USES: *Intern.*, diar.—*Extern.*, as oint.

in atonic sores & skin dis.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

CAMPHOR, SUMATRA—see Borneol

CAMPHOR, THYME—see Thymol

CAMPHOR, TONKA-BEAN—see Coumarin

Camphor Valerated

Mixt. camphor & valeric acid.—Colorl. to yellowish liq.—SOL.: A.—ACTION: Sed.; Anti-sep.—USES: Hyst. & o. nerv. affect.—DOSE: 0.06–0.3 cc. (1–5 M) sev'l t.p.d.

CAMPHORATED PHENOL—see Camphor, Phenolated

CANADA SNAKEROOT—see Asarum

CANADA TURPENTINE—see Balsam, Canada

CANADIAN HEMP—see Apocynum

¿-CANADIN—see Hydroberberine

Canadine

Alkaloid fr. rhizome *Hydrastis canadensis*, L.— $C_{20}H_{21}NO_4$ = 339.28.—Wh., somewhat glossy need.-like cryst.—SOL.: A.; insol. W.—MELT.: 132°–133° C.—ACTION: Excites severe peristalsis & causes diarrhea.

Canadine Hydrochloride

$C_{20}H_{21}NO_4 \cdot HCl$ = 375.74.—Yellow cryst.—SOL.: A.; v. sltly W.

Canadol

Kandol; Very Light Petroleum Ether; Light Ligroin.—Fr. petroleum; chiefly normal hexane.—Colorl., v. light liq.—Sp. Gr.: 0.650–0.700 at 15° C.—ACTION: Local Anesthetic.—USES: Sciatica, rheum., &c., in form of spray.—*Techn.*, as solvent in chem. & pharm. operations.

Candelilla Wax

A wax found coating the entire candelilla plant (*Pedilanthus pavonis*, Boiss.) found in Northern Mexico & Southern Texas.—Brownish to yellowish-brown, hard, brittle, easily pulverizable, opaque lumps.—SOL.: Oil turp., hot C., CCl_4 .—MELT.: 68°–70° C.—Sp. Gr.: 0.950–0.990.—USES: Manuf. rubber substitutes; furniture & leather polishes; sealing wax; phonograph records; waterproofing boxes & fabrics; candles; electric insulations; inst. of beeswax, etc.

CANDLEBERRY—see Bayberry Bark

CANE SUGAR—see Sucrose

Canella—N.F. V; B.P.C.

White, or Wild, Cinnamon; False Winter's Bark; Bahama White Wood; Wild Canilla.—Bark of *Canella Winterana*, Gaert. (*C. alba*, Murray [B.P.C.]), Magnoliaceae.—HABIT.: W. Indies & Florida.—CONSTIT.: Volat. oil (abt 1%) cont'g eugenol, cineol, & terpenes; caryophyllene; mannite (8%); resin; canellin.—ACTION: Aromat.; Stomachic.—USES: Debil. condit. of digest. organs, scurvy, &c. Also as spice, & as an addition to smoking tobacco.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose 2 Gm. (30 grn.).—Fl'dextr., 1–4 cc. (15–60 M).

CANILLA, WILD—see Canella

Cannabin Merck—Resinoid—(Not Cannabine)

Fr. *Cannabis sativa*, L., var. *indica* (Indian Hemp).—Greenish-black, extr.-like mass.—SOL.: A., E.—ACTION: Hypn.; Narcot.; Analg.; Aphrod.—USES: Hyst., delir. trem., neural., insom., gout, rheum., mental depres., insanity, &c.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); up to 0.3 Gm. (5 grn.) p. day.

Cannabine—Alkaloid—(Not Cannabin Resinoid)

Fr. *Cannabis sativa*, L., var. *indica*.—Brown powd.—SOL.: A., C., E.—ACTION: Hypn.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.).

Cannabine Tannate Merck

Fr. aqu. extr. *Cannabis sativa*, L., var. *indica*.—Brownish powd.; sltly bitter, & astring. taste.—SOL.: Acidulated A., or alkaline W.; sltly A., E., W.—ACTION: Hypn.; Sedative.—USES: Hyst., delir. tremens, nervous insomnia, dysmenorrhea, menorrhagia, &c.—DOSE: 0.25–0.5 Gm. (4–8 grn.) at bedtime.—MAX. D.: 1 Gm. (15 grn.) single; 2 Gm. (30 grn.) p. day.

Cannabinine

Alkaloid fr. *Cannabis sativa*, L., var. *indica*.—Yellowish to brownish, syrupy liq.; odor similar to that of nicotine.—SOL.: E.—ACTION: Hypn.; Sedat.—USES: In insomnia of hyst. & epilepsy.

Cannabinon

Cannabis, or Hemp, Resin.—Balsamic resin fr. *Cannabis sativa*, L., var. *indica*.—Dark-brown, sticky mass; v. disagr. taste.—SOL.: A., B., C., E., oils; insol. W., B.P.C.—ACTION: Hypn.—USES: Hyst., neurasthenia, & insanity.—DOSE: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—MAX. D.: 0.1 Gm. (1½ grn.).

Cannabis—U.S.P. X; B.P.

Indian Hemp; Indian Cannabis.—Dried flowering tops of pistillate plants of *Cannabis sativa*, L., Moraceae; (grown in India, & fr. which the resin has not been removed, B.P.).—HABIT.: Persia; East India; cultiv. in Europe, Asia, & Western U.S.—CONSTIT.: Volat. oil; bitter principle; cannabin; cannabine; cannabinon; oxycannabin (?); tetanocannabin (?); choline; trigonelline; muscarine.—ACTION: Hypnot.; Diuret.; Intoxicant; Anodyne; Nervine, Sudorific; Aphrodis.—USES: Headache, summer diar., anorexia, neural., rheum., gout, chorea, hyster., mental depress., mania, delir. tremens, spasmodic coughs, phth., asthma, tetanus, uterine hemorrhage.—DOSE: 0.06–0.3 Gm. (1–5 grn.).—MAX. D.: 0.5 Gm. (8 grn.) single, & 2 Gm. (30 grn.) daily.—Alcoh. extr., 0.008–0.06 Gm. ($\frac{1}{8}$ –1 grn.), & max. d., 0.12 Gm. (2 grn.) single, 0.3 Gm. (5 grn.) p.d.; *extern.*, in oint. & linim. (1:100) in local rheum., neuralgic, or inflammatory pains.—Fl'dextr., 0.06–0.3 cc. (1–5 M).—Tr. (1:10), 0.3–1.3 cc. (5–20 M); aver. dose 0.75 cc. (12 M), & max. d., 2 cc. (30 M) single, 8 cc. (120 M) p. day.—ANTID.: Emetics, lemon juice, tannin, coffee, ammonia, atropine, strychnine, artificial respiration, spirit nitrous ether, electricity.

CANNABIS RESIN—see Cannabinon

Cantharides—U.S.P. X; B.P.C.; Fr. Cod.

Spanish Fly; Blistering Fly; Blistering Beetle.—Dried insects, *Cantharis* (*Lytta*) *vesicatoria*, (L.), De Geer, Meloideæ.—HABIT.: Southern & Central Europe, mainly upon Oleaceæ & Caprifoliaceæ.—CONSTIT.: Cantharidin (not less than 0.6%, U.S.P.; 0.4%–0.8%, B.P.C.); fat (abt 12%); resinous substage acetic & uric acids; odorous compound.—ACTION: Diuretic; Aphrodis.; Emmen.; Rubefac.; Vesic.; Stim.—USES: *Intern.*, lupus, tuberculosis & cystitis.—*Extern.*, chiefly as a blister, & in neuralg. (as a vesicant), as oint., plaster, etc., & in hair-washes. Also in veter. practice.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.), as diuretic, aphrodis., &c.; large doses narcotic & irrit.—Ethereal & fl'dextr. are used as vesicants.—Tr. (1:10), 0.06–0.2 cc. (1–3 M); aver. d., 0.1 cc. ($\frac{1}{2}$ M).—VETER. MED., dose for cattle, 2–5 Gm. (30–75 grn.); horses, 0.5–2 Gm. (8–30 grn.); sheep & pigs, 0.2–0.5 Gm. (3–8 grn.); dogs, 0.06–0.2 Gm. (1–3 grn.); cats, 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—ANTID.: Stomach siphon; emetics; demulcents (not oils); morphine; stim.; cataplasms to abdomen.

CANTHARIDES CAMPHOR—see Cantharidin

Cantharidin Merck

Lactone of Cantharidic Acid; Cantharides Camphor.— $C_8H_{12}O:(CO)_2O = 196.15$.—Act. prin. fr. *Cantharis vesicatoria*, De Geer.—Colorl., cryst. scales; blister the skin.—SOL.: 700 E., 150 acetic ether, 65 C., 40 acetone, fixed oils, v. sltly W., B.P.C.; 55 C., 200 expressed almond oil, 65 oil cloves, Sq.—MELT.: $218^\circ C$; 210° – 212° , B.P.C.—SUBL.: Abt $120^\circ C$.—ACTION: Stim.; Vesic.; Antituberc.; Diur.; Aphrodis.—USES: *Intern.*, in lupus, pityriasis rubra, & tuberculosis; also scrofula, pleurisy, dropsy, epilep., cystitis, incontinence of urine, gleet.—DOSE: 0.00025–0.0005 Gm. ($\frac{1}{240}$ – $\frac{1}{120}$ grn.) (B.P.C.), in 1:100,000 hydroalcoholic solut.—*Subcut.*: in form of potass. cantharidinate, 0.2–0.36 cc. (3–6 M) of 1:5000 solut. sev'l t.p. week.—MAX. D.: 0.0006 Gm. ($\frac{1}{100}$ grn.).—ANTID.: Emetics, stomach siphon, mucilaginous drinks, ice, camphor, & opium; avoid fats & oils.—CAUT.: Poison!

CANUTILLO—see Ephedra

CAOUTCHOUC—see Rubber

CAPILLAIRE DE CANADA—see Adiantum

CAP-MINT—see Calamint

Caprokol

Hexylresorcinol.— $C_6H_3(OH)_2(C_6H_{13}) = 194.20$.—Pale yellow, heavy liq. becoming solid on standing at room temp.; pungent odor.—SOL.: Eas. A., B., C., E., oils; abt 2000 W.—BOIL.: $178^\circ C$. at 8 mm.—ACTION: Urinary Germicide & Disinfectant.—USES: Urinary affections.—DOSE: 0.15–0.6 Gm. ($2\frac{1}{2}$ –10 grn.) 3 t.p.d. in olive oil solut.

iso-CAPRONITRILE—see iso-Amyl Cyanide

Capronyl Chloride

$C_6H_{11}OCl = 134.58$.—Fr. normal caproic acid.—Colorl. liq.—BOIL.: 150° – $153^\circ C$.

Capryl Acetate

Octyl Acetate.— $C_8H_{17}.C_2H_3O_2 = 172.21$.—Colorl. liq.—SOL.: A.—SP. GR.: 0.885 at $0^\circ C$.—BOIL.: $210^\circ C$.—USES: Manuf. perfumes & cosmetics.

Caprylene

Octylene; Octene.— $C_8H_{16} = 112.14$.—An olefine fr. octyl A. by I & red P.—Colorl. liq.—SOL.: A.—SP. GR.: 0.722 at $15^\circ C$.—BOIL.: 123° – $125^\circ C$.—USES: Manuf. perfumes & intermediates.

Capsella

Shepherd's Purse; Blind-weed.—Dried plant of *Capsella Bursa pastoris*, Moench, Cruciferae.—HABIT.: Europe; natur. in U. S.—CONSTIT.: Bursin; saponin; bursinic acid; tannin.—ACTION: Hemost.; Febrif.; Diuret.; Antiscorbutic; Stim.; Astring.—USES: Amenor., scurvy, dropsy, hemorrhages.—DOSE: 1–4 Gm. (15–60 grn.) in powd.—Fl'dextr., as antiscorbutic, 1–2 cc. (15–30 M); in hemorrhage, 5–10 cc. (75–150 M); Max D., 15 cc. (4 fl. dr.) single, 30 cc. (1 fl. oz.) p. day.—Tr., 2–4 cc. (30–60 M).

Capsicin Merck

Oleoresin fr. *Capsicum annuum*.—Soft, reddish-brown masses.—SOL.: E.; part. A.—1 capsicin = 14 capsicum.—ACTION: Stim.; Rubef.; Anod.—USES: *Intern.*, promote digestion, & in flatulence.—*Extern.*, rubefacient, relieve pain.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.) 3 or more t.p.d.—APPL.: In olive oil, or petrolatum.—Also used to impart a pungent taste to brandy, & vinegar (for mixed pickles).

Capsicum—U.S.P. X; B.P.

Cayenne Pepper; African Pepper; Chillies; Bird Pepper.—Dried, ripe fruit of *Capsicum frutescens*, L. grown in Africa (*C. minimum*, Roxb., B.P.), Solanaceæ.—HABIT.: Southern India; extensively cultivated in tropical America & Africa.—CONSTIT.: Fixed oils; capsacin (capsacutin) (0.02%); capsicin; capsicol; capsicine (a volat. alkaloid [?]); coloring matter.—ACTION: Stim.; Stomach.; Rubef.; Diaphor.; also as Condiment.—USES: *Intern.*, diar., dyspep., palsy, sore throat, gastric inactivity of malaria, atonic gout, colic, alcoholism, &c.—*Extern.*, in rheum., neural., lumbago, &c.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose, 0.06 Gm. (1 grn.), U.S.P.—Oleores. 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); *extern.*, in alcohol. solut. in rheum., neural., lumbago, &c.—Fl'dextr., 0.06–0.3 cc. (1–5 M).—Tr. (1:10), 0.3–1 cc. (5–15 M).

CAPUT MORTUUM—see Colcothar

Caramel—N.F. V

Burnt Sugar Coloring; Burnt Sugar.—Brown substance obt'd fr. sugar or glucose by heat.—Dark-brown, thick liq.; pleas., bitter taste; charact. odor of burnt sugar.—SOL.: W., dil. A.; insol. B., C., E., acetone, petrol. E., oil turpent.—SP. GR.: Not less than 1.35 at $25^\circ C$.—USES: Coloring foods, confectionery, galenicals, &c.

CARAMESE—see Karamose

Caraway—U.S.P. X; B.P.

Dried ripe fruit of *Carum Carvi*, L., Umbelliferae.—HABIT.: Europe; Central & Western Asia; cult. in England, Russia, U. S., &c.—CONSTIT.: Volat. (3.5%–7%) & fatty oils; resin; sugar; tannin; mucilage.—ACTION: Carmin.; Stim.; Diuret.; Stomachic.—USES: Partic. f. infants in flatulent colic; also as spice in cakes, &c.—DOSE: 0.6–2 Gm. (10–30 grn.); aver. dose, 1 Gm. (15 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).

CARBAMIDE—see Urea

CARBAMIDICACID-AMIDIN—see Guanidine

CARBAMIDINE CARBONATE—see Guanidine Carbonate

CARBAMINIC-ACID-HYDRAZIDE HYDROCHLORIDE—see Semicarbazide Hydrochloride

CARBANIL—see Phenyl Isocyanate

CARBANILID—see Diphenylurea

CARBANILID CHLORIDE—see Diphenylurea Chloride

Carbazole—Cryst.

Diphenylimide; Imidodiphenyl.— $\text{H}_4\text{C}_6\text{.NH.C}_6\text{.H}_4$ = 167.14.—By heat, aniline vapor in a red-hot tube, or fr. crude anthracene.—Wh. to reddish-wh. cryst.—SOL.: Sltly cold, more eas. hot, A., B., C., E., CCl_4 , acet. acid, petrol. E.—MELT.: Abt 238° C.—USES: Test f. lignin (Czapek; Mattiolo), carbohydrates (Fleig), formaldehyde (Gabutti); also manuf. dyes & intermediates.

CARBINOL—see Alcohol Methylc

CARBOLATED CAMPHOR—see Camphor, Phenolated

Carbon Black

A number of carbon blacks are met with, e.g.: (1) Animal charcoal (fr. bones, meat, blood, etc.); (2) Gas black (obt'd by incomplete combust'n of natural gas); (3) Lamp-black (obt'd by burn'g various fats, oils, resins, etc.); (4) Wood charcoal; & (5) various kinds of carbonized matter (e.g., sugar, leather, etc.). Of these the carbon black obt'd fr. bones is much the densest, while the others are not only specifically much lighter, but are obt'd in most extremely fine powd.—USES: Nos. 1, 4, & 5 are used chiefly f. clarifying, deodorizing, & decolorizing purposes. Nos. 1 & 4 are also used medicinally. The other blacks are used as a pigment f. rubber tires, printing & stencilling inks; leather; stove polish; phonograph records; electrical insulating apparatus; Chinese & India inks; carbon copying papers; absorbing poisonous gases, etc.

CARBON BICHLORIDE—see Carbon Dichloride

CARBON BISULPHIDE—see Carbon Disulphide

CARBON CHLORIDE, JULIN'S—see Perchlorbenzene

Carbon Dichloride

Carbon Bichloride; Tetrachlorethene; Tetrachlorethylene; Perchlorethylene.— $\text{CCl}_2\text{:CCl}_2$

= 165.85.—Fr. C_2Cl_6 by high heat or reducers (Zn & H_2SO_4).—Colorl. liq.; ether. odor.—SOL.: A., E.—SP. GR.: 1.62 at 15° C.—BOIL.: 115°–122° C.

CARBON DIOXIDE—see Acid Carbonic, Liquefied

Carbon Disulphide Merck—Reagent

CS_2 = 76.13.—Clear, colorl. or at most faintly yellowish, inflamm. liq.—MISC.: A., E.; sol. in abt 500 W.—SP. GR.: Abt 1.272.—BOIL.: 46°–47° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Foreign Sulphides.....	0.000%
H_2SO_4 & H_2SO_3	0.000%

USES: In organic synthesis as solvent f. S, I, & other reagents; determ'g S in ores & remov'g it fr. pptd sulphides in analysis; in electrochemical decomp'n of Ag; separ. & detect. halogens; reag. f. cottonseed oil (Garnier; Halphen; Soltsien), ceresin (Gräfe), tertiary alcohols (Hell), & atropine (Pohl).

Carbon Disulphide Merck—C.P.

Carbon Bisulphide.— CS_2 = 76.13.—By pass. S vapors over glowing charcoal.—H'ly refract., clear, colorl., v. volat., inflam. liq.; strong, pecul. odor; sharp, arom. taste; becomes yellowish on expos. to light.—SOL.: A., C., E., fixed & volat. oils.—SP. GR.: Abt 1.272 at 15° C.—FLASH POINT: –20° C. (close test).—IGNIT. POINT: Under 200° C.—BOIL.: 46°–47° C.—NOTE! Vapors are highly inflammable, & mixed w. air are explosive.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Foreign Sulphides.....	0.000%
H_2SO_4 & H_2SO_3	0.000%

USES: Chem., as of the Reagent above.—*Medic.*, as Antisept.; Rubefacient; Local Anesth.; *intern.*, typhoid, pneumon., diar., gastric cancer, dyspep., &c.—*Extern.*, counterirrit. in enlarged lymph. glands, in rheum., neural., &c.—DOSE: 0.2–0.6 cc. (3–10 M), in milk or mucilage.—In VET. MED., to remove gastrophilus larva fr. horses, in doses of 15 cc. (4 fl. dr.); foals 5–6 cc. (75–90 M), in gelat. caps.—ANTID.: Fresh air, warm baths, cold affusions, electricity, potass. iodide.—CAUT.: Keep cool & well stoppered. Highly inflammable!

do. Merck—Technical—98%–100%

DESCRIPT., SOL., Etc.: As preceding.—USES: As solvent of fats, rubber, gutta percha, waxes, resins, & oils fr. bones, seeds & oil cake; extract'g volat. oils fr. flowers; manuf. sulpho-carbonates & xanthogenates of the alkalies, & also viscose & viscid; diss. S & P in manuf. matches; in varnishes & lacquers; preservative; destroying insects (moths in clothing, plant insects, weevils etc. in grain, etc.); burning out vats & barrels; refrigeration; soil disinfectant; manuf. various chem. compds. f. photographic & galvanoplastic purposes, filling glass prisms, &c.

CARBON HEXACHLORIDE—see Carbon Trichloride

Carbon Tetrachloride Merck—Reagent

CCl_4 = 153.85.—Clear, colorl., non-inflamm. liq.—**SOL.**: Abt 1200 W.; misc. A., B., C., E., & benzin.—**SP. GR.**: Abt 1.603 at 15° C.; 1.589 at 25° C.—**BOIL.**: 76°–77° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Aldehyde	None
Carbon Disulphide (CS_2).....	0.0010%
Free Chlorine (Cl)	0.000%
HCl	0.0002%
Substcs. Darkened by H_2SO_4	None

USES: Solvent f. oils, fats, waxes, resins, alkaloids, I, Br, etc.; extract'n & assay of drugs; anal. of mineral phosphates & ashes; in toxicological detect'n of strychnine & atropine; in examinat'n of hops & coffee; reagent f. palm oil (Crampton), rosin (Förster), & rosin oil (Halphen).

Carbon Tetrachloride Merck—C.P.

Benzinoform; Tetrachloromethane; Perchloromethane.— CCl_4 = 153.85.—Fr. CS_2 & Cl by heat.—Heavy, clear, colorl., mobile, non-inflammable fluid; charact. odor.—**SOL.**: Abt 1200 W.; misc. A., B., C., E., & benzin.—**SP. GR.**: Abt 1.603 at 15° C.; 1.589 at 25° C.—**BOIL.**: 76°–77° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Aldehyde.....	None
CS_2	0.003%
Free Chlorine (Cl)	0.001%
HCl.....	0.001%
Substcs Darkened by H_2SO_4	Trace

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Suitable f. Internal Medicinal Use

DESCRIPTION, SOL., Etc.: As of preced'g.—**ACTION**: Vermicide; Anthelmintic; Local Anesth.—**USES**: *Intern.*, remov'g hookworms, ascaris, etc.; also in tic douloureux, dysmenorrh., & in gastric pains.—*Extern.*, as solvent f. I (iodobenzinoform) f. skin disinf.; also as spray in neuralg., hyperesthesia, & in dental techn.—**DOSES**: Adults, 3–4 cc. (45–60 M); aver. dose 2.5 cc. (40 M). Larger doses, e.g. 5 cc. (75 M) & upwards are unnecces., & are even undesirable, as they may cause fatty hepatic or renal degeneration. Children, 0.2 cc. (3 M) f. ea. year of age up to 15 yrs.—**NOTE**: Carbon Tetrachloride Merck, U.S.P. X, is eminently adapted for internal use. The lower grade, used for fire extinguishing, cleaning, etc., should *not* be used as it may cause toxic effects. Nor should the preparation be given to alcoholics.

do. Merck—Purified—Not f. Medicinal Use

USES: *Techn.*, as fire extinguisher, non-inflammable substit. f. benzin f. cleansing, rendering benzin non-inflammable, & as solvent f. fat lacquers or varnishes, rubber, paraffin, waxes, resins, nitrocellulose, aluminum palmitate &

stearate &c.; exterminating destructive insects (grain weevil, phylloxera, San José scale, etc.); manuf. intermediates, rubber goods; extracting oil fr. seed & perfumes fr. flowers, dissolving out fat fr. bones, wool, cotton waste, & polishing rags; manuf. viscins; solvent f. alkali cellulose, &c.—**NOTE**: This grade should *not* be given for internal use; for this the U.S.P. X quality should be employed.

Carbon Trichloride

Hexachlorethane; Perchlorethane; Carbon Hexachloride; Tetrachlorethylenedichloride.— $\text{CCl}_3.\text{CCl}_3$ = 236.77.—By passing Cl into boil'g ethylene chloride in sunlight.—Colorl. cryst.; camphor. odor.—**SOL.**: A., E., oils; insol. W.—**BOIL.**: Abt 185° C.—**ACTION**: Stim.—**USES**: *Intern.*, algid stage in cholera.—*Extern.*, in oint. as loc. anesthetic.—**DOSE**: 0.25–0.5 Gm. (4–8 grn.) ev. $\frac{1}{2}$ hr.

CARBONIC ANHYDRIDE—see Acid Carbonic

CARBONYL CHLORIDE SOLUTION—see Phosgene Solution

CARBONYL QUININE—see Aristochin

CARBONYLDIAMIDE—see Urea

CARBONYLDIPHENYL OXIDE—see Xanthone

Carborundum

Cryst. silicon carbide, SiC = 40.11.—Fr. coke & sand (& salt as flux) in electric furnace.—Exceedingly hard, green to bluish-black, iridescent, sharp cryst.; hardness (9.5) between that of sapphire & of diamond.—**SP. GR.**: 3.23 at 15° C.—**USES**: Polishing & sharpening; abradant; inst. of ferro-silicon in iron & steel industries; manuf. porcelain; polishing granite, smoothing bisque ware; manuf. "emery" paper & wheels; polishing glass; manuf. shoe soles, refractory brick & furnace linings, anti-skid pavements; &c.; 3–4 times more effective than corundum.

Carbalthaldine

Diethideneammonium Thiocarbamate; Diethylidene Dithiocarbamate.— $\text{NH}_2.\text{CS}.\text{SN}(\text{CH}_3)_2$ = 162.24.—Fr. aldehyde-ammonia & CS_2 .—Yellowish-red cryst.—**SOL.**: In acids; sltly in A.—Is a powerful tetanic poison.

CARBOXYLICACID-DIETHYLESTER—see Eufin

Carbromal—U.S.P. X

Bromdiethylacetylcarbamide; Adalin; Planadalin; Uradal.— $\text{C}(\text{C}_2\text{H}_5)_2\text{Br}.\text{CONH}.\text{CONH}_2$ = 237.08.—Wh., odorl., cryst. powd.—**SOL.**: Abt 3000 W., 18 A., 3 C., 14 E., at 25° C.; v. sol. boil. A.; also sol. in H_2SO_4 , HNO_3 , HCl, & alkali hydroxides.—**MELT.**: 116°–117° C.—**ACTION**: Sed.; Mild Hypnotic.—**USES**: Insomnia & mental excitement; anxiety, restlessness, irritab., cardiac neuroses; aortic distress, epilepsy, sexual neurasthenia, morphinism; also in hysteria & chorea, conditions of nervous excitability, & in restlessness of nervous heart dis.—**DOSE**: *Sedat.*, 0.3–0.6 Gm. (5–10 grn.) 3–4 t.p.d.; aver. dose 0.5 Gm. (8 grn.); *hypnot.*, 0.6–1 Gm. (10–15 grn.) w. hot sweetened water or weak tea.

Cardamom Seed—U.S.P. X; B.P.

Dried ripe seed of *Elettaria Cardamomum*, Maton, Zingiberaceæ.—**HABIT.**: Malabar; cult. in India & Ceylon.—**CONSTIT.**: Resin; fixed & volat. (2%–8%) oils; albuminoids; manganese.—**ACTION**: Stomachic; Carmin.; Stim.; Aromat.; Condiment; Spice.—**DOSE**: 0.6–2 Gm. (10–30 grn.); aver. dose 1 Gm. (15 grn.).—**Fl' dextr.**, 0.6–2 cc. (10–30 M).—**Comp. fl' dextr.** (cardamom, cinnamon, caraway, & cochineal), 1–4 cc. (15–60 M).—**Comp. Tr.**, 2–8 cc. (30–120 M).—**Tr.** (1½:10), 2–4 cc. (30–60 M).

CARDIAZOL—see Metrazol

Cardol—Pruriginous

Non-volat. oil fr. *Anacardium orientale*, & fr. seeds of *Semecarpus Anacardium*, L. fil.—Dark-brown, viscid, oily liq.—**SOL.**: A., E.—**ACTION**: Rubef.; Caustic.—**USES**: *Extern.*, as caustic in chron. skin dis., & with oil, in syph.

do. —Vesicatory

Fr. *Anacardium occidentale*.—Oily, dark-brown, viscid liq.—**SOL.**: A., E.; insol. W.—**ACTION**: Drastic Cath.; Vermifuge (obsolete); Vesicant.—**USES**: Caustic f. granulations, warts, corns, &c., & as vesicant. Skin must be dry; does not act when moist.—*Techn.*, in indelible inks; the written characters when moistened w. lime water turn black.—**DOSE**: 0.012–0.06 cc. (¼–1 M) in alcoh. solut.—**CAUT.**: Technical use not free from danger; sometimes causes severe inflam. of the skin.

Cargentos

Colloidal Silver Oxide.—Colloidal silver-casein comp'd; 20%–25% Ag.—Odorl., tastel., black scales; metallic luster.—**SOL.**: W., G.; soluts. reddish-brown by transmitted, & greenish-black by reflected, light.—**ACTION**: Antisept.—**USES**: Inst. of ord. organic silver salts as in-test. antisept.; also in dis. of eye & genito-urinary organs in 5%–20% solut.; f. other mucous membranes, 10%–50% solut.

CARICA—see Papaw

CARLSBAD SALT—see Salt, Carlsbad

Carmine Merck—Reagent

Bright red, light pieces, eas. reduced to fine powd.—**SOL.**: NH₄OH; insol. W., dil. acids.

MAXIMUM OF IMPURITIES

Water.....	25%
Ash.....	8%
Matter Insol. in NH ₄ OH.....	Traces

USES: Solut. & paper as indicator (the red ammon. solut. becomes yellowish red on add'g acids); stain in microsc., e.g., Grenacher's Carmine-HCl, borax-carmine, & alum carmine; Hartig's carmine ammonia; Schweizer-Seidel's carmine solut. f. stain cell nuclei; Thiersch's oxalic acid-carmine & borax-carmine; also soluts. of Arcangeli, Beale, Best, Brass, Cuccati, Czokor, Dreyse-Oppler, Frey, Frey-Schneider, Friedländer, Gedölst, Gerlach, Gibbes, Gierke, Grieb, Hamann, Henneguy, Hoyer, Kollman, Kühne, Kultschitzky, Lang, Legal, Mayer,

Merkel, Minot, Nikiforoff, Orth, Rabl, Schmaus, Schneider, Seiler, Squire, Stöhr, Tangl, Thome, Upson, Wallert, Weigert, & Zacharias.

Carmine Merck—No. 40—N.F. V

Aluminum lake of the dried pigment fr. dried female of *Coccus cacti*, L. (Cochineal), obt'd by pptn w. inorganic salts & albumin.—Light, bright-red, friable lumps or powd.—**SOL.**: In NH₄OH (deep-red solut. w. violet tinge), soluts. of caustic alkalies, alkali carbonates, & borax; partially in hot W.; insol. acids & cold W.—**USES**: Dye; in microscopy; inks; coloring food products, galenicals, etc.—**CAUT.**: Keep fr. light.

do. —Solution—N.F. V

Fr. 65 Gm. carmine, 365 cc. NH₄OH, & 365 cc. G. w. W. to make 1000 cc.

Carmine-Fibrin—Accord. to Grützner

Carmine-fibrin in glycerin.—Dark, cherry-red crumbly masses prep. by dyeing washed blood fibrin w. an ammon. solut. carmine.—Swells in 0.1% HCl without dissolv. or yielding any of its coloring. If pepsin, however, is added to the liq., the fibrin is dissolved more or less rapidly accord. to the quant. & strength of pepsin added. The progress of the solution is recognized by the increas'g redness of the liq., in which the carmine dissolves after solut. of the fibrin. Bef. use, carmine-fibrin should be washed w. W., pressed w. the hands, & allowed to swell fully in 0.1%–0.2% HCl; when swelled it may be cut up w. scissors.—**USES**: Estim. pepsin by observ'g red color developed in soluts. & compar'g w. standard color solut.

Carnallite—Mineral

OCCUR.: Stassfurt.—**COMPOS.**: MgCl₂.KCl.·6H₂O.—**CRYST. SYST.**: Rhomb.—**LUSTER**: Shining, greasy.—**COLOR.**: Milk-wh., often reddish.—**Brittle**; transp. to transluc.; deliq.—**HARDN.**: 1.—**SP. GR.**: 1.6.—**USES**: Source of K salts, & as fertilizer.

Carnauba Wax

Brazil Wax.—Exudation fr. upper surface of lvs of the wax palm, *Copernicia* (Corypha) cerifera, Mart., Palmæ.—**HABIT.**: Brazil.—Hard, amorph., light-yellow to pale, dirty, greenish lumps; brittle & pulverizable; semi-resinous fracture & charact. polish; peculi. agre. odor.—**SOL.**: E.; boil. A., hot oil turp.—**MELT.**: 84°–86° C.—**SP. GR.**: 0.995–1.000 at 15° C.—**CONSTIT.**: Myricyl alcohol; cerotinic acid; cerotinic-acid myricyl ester (chiefly); carnaubic acid.—**USES**: *Techn.*, as a substit. f. beeswax; wax varnishes; candles, phonograph cylinders & records, leather & furniture polish, electrical insulating compounds, etc.

Carnine

C₇H₈O₃N₄ + H₂O = 214.15.—Alkaloid fr. meat extr.—Wh. powd.—**SOL.**: v. sltly cold, more eas. hot, W.; insol. A., E.

Carnine Hydrochloride

C₇H₈O₃N₄HCl = 232.57.—Fine, wh. need.—**SOL.**: W.

CARNOTINE—see Primuline Yellow

Carnotite—Mineral

OCCUR.: U. S. (Colo., Ariz., Penn., Utah).—
COMPOS.: Variable, but contains $2\text{UO}_3 \cdot \text{V}_2\text{O}_5 \cdot \text{K}_2\text{O} \cdot x\text{H}_2\text{O} + 2\text{UO}_3 \cdot \text{V}_2\text{O}_5 \cdot \text{CaO} \cdot x\text{H}_2\text{O}$, w. other radioactive elements *e.g.*, radium.—LUSTER.: Dull.—COLOR: Canary yellow.—STREAK.: Lemon yellow.—FRACT.: Brittle, uneven.—
USES: Radioactive, & is an important source of radium.

Carnoy's Alcohol-Acetic Acid

Mixt. 1 vol. glacial acetic acid & 3 vol. absol. A.—USES: Fixing animal organisms, sections, &c., bef. staining, partic. w. hematoxylin.

do. Hardening Solution

1 Gm. chromic acid, 0.3 Gm. osmic acid, and 3 Gm. acetic acid, diss. in 65 cc. water.—USES: Hardening microscopic prep's.

CAROLINA PINK—see Spigelia

CARONY BARK—see Angostura

Caro's Solution

Satur. solut. potass. persulphate in conc. H_2SO_4 .—
USES: Oxidizing agent.

Carpaine

$\text{C}_{14}\text{H}_{25}\text{O}_2\text{N} = 239.28$.—Alkaloid fr. lvs of *Carica Papaya*, L. (Tropical melon-tree).—Wh. cryst.—
SOL.: A., C., E., amyl alcohol, B., CS_2 ; insol. W.—
MELT.: 119° – 120° C.—ACTION, USES, DOSES, &c.: As of the hydrochloride.

Carpaine Hydrochloride

$\text{C}_{14}\text{H}_{25}\text{O}_2\text{N} \cdot \text{HCl} = 275.68$.—Wh., bitter cryst.—
SOL.: W.—ACTION: Cardiac Tonic; Diuret., &c., like digitalis.—USES: Mitral insufficiency & aortic stenosis.—DOSE: Daily 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).—
INJ.: 0.006–0.01 Gm. ($\frac{1}{10}$ – $\frac{1}{2}$ grn.) per day.

Carpené's Solution—Test for Tannin in Wine

Satur. solut. zinc acetate in dil. NH_4OH .—
Ppts tannin, but not gallic acid; ppt. insol. in W., NH_4OH , & solut. zinc acetate.

CARRAGHEEN—see Chondrus

Carrel-Dakin Solution

A sltly alk. solut. chlorinated soda cont'g 0.38%–0.48% available Cl = 0.4%–0.5% sod. hypochlorite.—Us'ly prep. fr. 15.4 Gm. chlorinated lime U.S.P. (30% available Cl), 7.7 Gm. Na_2CO_3 anhydrous, & 6.4 Gm. NaHCO_3 , per liter.—ACTION: Surgical Antisept. & Disinfect.; Germicide.—USES: As applic. to infected wounds by pract. continuous irrigat'n; solut. dissolves necrotic tissues & keeps wound clean. Should not be injected into peritoneum.—
Applied full strength; if below 0.4% sod. hypochlorite clinical effect is nil, & if above 0.5% irritant effect on skin may be serious, hence in making solut. the Cl content should be carefully adjusted by titration.

CARROT, DEADLY—see Thapsia

Carthamin

Carthamic Acid; Safflor-carmine; Safflor-red.—
 $\text{C}_{14}\text{H}_{16}\text{O}_7 = 296.13$.—Coloring prin. fr. *Carthamus tinctorius*, Willd. (Safflower).—Dark-red leaflets or powd.—
SOL.: Dil. alkali carbonates & in A.; insol. W., E.; solut's rapidly decomp.—
USES: Dye.

Carthamus

Safflower; African Saffron; Thistle Saffron; American Saffron; False or Bastard Saffron; Dyer's Saffron.—Florets of *Carthamus tinctorius*, L. Compositae.—HABIT.: Levant; Orient; cultiv. extensively in Europe & America.—
CONSTIT.: Carthamin (carthamic acid); safflor yellow.—ACTION: Diaphor.; Astring.; Emmen.—
USES: *Medic.*, hasten eruption in measles, scarlet fever, &c.—*Techn.*, in dyeing; surrogate f. Spanish saffron; color f. butter, liqueurs, confectionery, & cosmetics.—DOSE: 4–8 Gm. (60–120 grn.) in infus.—
Fl' dextr., 1–4 cc. (15–60 M).

Carvacrol

Oxycymol; Betacymophenol; Isopropyl-*o*-cresol.—
 $\text{C}_6\text{H}_3(\text{CH}_3)(\text{OH})(\text{C}_3\text{H}_7)[1:2:4] = 150.16$.—
Fr. oil of Cretan Origanum (found also in thyme, & summer savory); also prepared synthetically.—
Colorl. liq.; odor like that of thymol.—
MISC.: A.—
SP. GR.: 0.981 at 15° C.—
BOIL.: 236° – 238° C.—
USES: Perfumery; powerful antiseptic.

CARVOL—see Carvone

Carvone—B.P.C.

Carvol.— $\text{C}_{10}\text{H}_{14}\text{O} = 150.16$.—Ketone found in caraway, dill, & spearmint oils.—Thick, colorl. or sltly yellow liq.; caraway odor.—
MISC.: A.—
SP. GR.: 0.963–0.966 at 15.5° C.—
BOIL.: 224° C.—
ACTION: Arom.; Carminative.—
USES: As of oil caraway.—DOSE: 0.03–0.2 cc. ($\frac{1}{2}$ –3 M).

Caryophyllin

$\text{C}_{20}\text{H}_{32}\text{O}_2 = 304.36$.—Constit. of cloves.—
Col- orl., odorl., silky needles.—
SOL.: Warm A., E.—
SUBL.: Abt 285° C.

CARYOPHYLLUS—see Clove

CASCA BARK—see Sassy Bark

Cascara Amarga—N.F. V

Honduras Bark.—Bark of undetermined spec. of *Picramnia* (P. antidesma, Sieb. [?]), Simarubaceae.—
HABIT.: West Indies; Mexico.—
CONSTIT.: Picramnine (3%).—
ACTION: Tonic; Alter.—
USES: Constit. syphilis, chron. eczema & o. skin dis., & chron. nephritis.—
DOSE: 2–4 Gm. (30–60 grn.); aver. dose 1 Gm. (15 grn.).—
Fl' dextr., 2–4 cc. (30–60 M).—
Powd. extr. (1:5), 0.3–0.6 Gm. (5–10 grn.).

Cascara Sagrada—U.S.P. X; B.P.; Fr. Cod.

Sacred Bark; Chittem, Chittam, or Chittim, Bark; Purshiana Bark; Persian Bark; Bearberry; Bearwood.—Dried bark of *Rhamnus Purshiana*, De C., Rhamnaceae.—
HABIT.: Northern Idaho, west to Northern California.—
The bark loses its gripping properties on being kept f. 1 year.—
CONSTIT.: *Bark*: Emodin;

frangulin; 3 resins; tannin; purshianin; cascarin (?); glucose; a hydrolytic enzyme; peristaltin (?); fixed & volat. oils.—**Berries:** Frangulin, rhamnin, & rhamnocathartin.—**ACTION:** Purg.; Tonic; Febr.—**USES:** Chron. constip.; w. more potent remed. in rheumat.—**Berries** are diuret. & laxat.—**DOSES:** 0.6–8 Gm. (10–120 grn.) in powd.; aver. dose 1 Gm. (15 grn.).—**Aqu. ext.,** 0.12–0.5 Gm. (2–8 grn.).—**Arom. syr.** (abt 1:2.5), 2–8 cc. (30–120 M).—**Arom. (& Tastel.) Fl'extr.,** 0.6–4 cc. (10–60 M).—**Fl' (Liq.) extr.,** 0.6–4 cc. (10–60 M).—**Hydro-alcoh. extr., dry,** 0.12–0.6 Gm. (2–10 grn.).—**Hydro-alcoh. extr., soft,** 0.3–1 Gm. (5–15 grn.).—**Tr.,** 0.6–4 cc. (10–60 M).

Cascarilla—N.F. IV; B.P.

Eleuthera Bark; Sweet-wood Bark.—Dried bark of Croton Eluteria, Bennett, Euphorbiaceæ.—**HABIT.:** Bahama Islands; Cuba; Hayti.—**CONSTIT.:** Volat. oil (abt 1%); cascarillin; cascarilline; resin (15%); tannin; betaine.—**ACTION:** Stim.; Arom. Bitter; Tonic; Febrif.—**USES:** *Medic.,* intermitt. fevers, dyspep., chronic diar., colic, &c.—*Techn.,* as an addition to smoking tobacco f. flavoring.—**Dose:** 0.6–2.6 Gm. (10–40 grn.); large doses emetic.—**Alcoh. extr.,** 0.12–0.36 Gm. (2–6 grn.).—**Fl'dextr.,** 1–2.6 cc. (15–40 M).—**Aqu. extr.,** 0.5–1.5 Gm. (8–24 grn.).—**Infus. (1:20),** 15–30 cc. (4–8 fl. dr.).—**Tr. (1:5),** 2–4 cc. (30–60 M).

Casein Merck—Technical

Albuminoid fr. milk.—**Wh.** to yellowish gran. powd.—**SOL.:** Alkalies; insol. W., A., E.—**USES:** Massage creams; in leather industr., binder in dyes f. paper, substitute f. linseed oil in paints, & f. glue in cabinet making & cartons; clarifying wines; substitute f. albumin, varnish, shellac, celluloid, gums, & gelatin; manuf. fotogr. films, artif. meerscham & ivory, & insulators; substitute f. horn & hard rubber; size & glaze f. textile fabrics; waterproofing tissues; electrical insulators; manuf. linoleum; etc.—A fine quality of casein is used medicinally in dietetic prep's.

do. Merck—Accord. to Hammarsten

Albuminoid fr. milk.—**USES:** Determ. effectiveness of digestive ferments (pepsin & trypsin), & as test f. formaldehyde.

CASEIN-AMMONIA—see Eucasin

CASEIN-CALCIUM—see Calcium Caseinate; Laroan

CASEIN-SILVER—see Argonin

Casein-Sodium

Nutrose.—Sodium comp. of casein.—65% proteids.—Coarse, wh., odorl., tastel. powd.—**SOL.:** W. w. turbid.—**ACTION:** Dietetic.—**USES:** Nutrient in wasting diseases.—**DOSE:** Teaspoon. sev'l times per day in milk, bouillon, or cacao.

CASHOO—see Catechu, Black

CASSAVA STARCH—see Tapioca

CASSEL YELLOW—see Lead Oxychloride

CASSEL'S GREEN—see Barium Manganate

Cassia—Bark—B.P.C.

Chinese Cinnamon.—Fr. Cinnamomum Cassia, Blume, Laurineæ.—**HABIT.:** Cochin China; South China; Eastern Asia.—**CONSTIT.:** Vol. oil (1%–2%); tannin; sugar; mucilage; coloring matter.—**ACTION:** Carminative; Mild Astring.; Antisep.—**USES:** As of cinnamon.

do. Buds—B.P.C.

Unripe, dried fruit of Cinnamomum aromaticum, Nees, & o. sp. of Cinnamomum, Laurineæ.—**HABIT.:** China.—Buds resemble cloves in appearance, but are smaller; nail-like shape, w. round heads; brown color; cinnamon-like odor; pungent taste.—**CONSTIT.:** Volat. oil (abt 1.6%); tannin.—**USES:** Arom. & condiment, like cinnamon bark.

Cassia Fistula—N.F. V; B.P.

Cassia Pods, B.P.; Purging Cassia; Drumstick; Indian Laburnum; Pudding-Pipe; Pudding-Stick.—Dried fruit of Cathartocarpus Fistula, Persoon (Cassia Fistula, L., B.P.), Leguminosæ.—**HABIT.:** Upper Egypt; E. India; cultiv. in tropical America & Africa.—**CONSTIT.:** See Cassia Pulp.—**ACTION:** Lax.; Cath. Given as Confect. of Senna.—**DOSE:** 4–8 Gm. (1–2 dr.) as lax.; aver. dose 4 Gm. (60 grn.); 30–60 Gm. (1–2 oz.) cath.

CASSIA PODS—see Cassia Fistula

Cassia Pulp—B.P.

The pulp fr. the pods of Cassia Fistula L.—Alm. black, viscid mass; sweetish taste.—**CONSTIT.:** Oxymethylantraquinones; sugar (abt 60%); gum; tannin; albuminoids.—**ACTION:** Lax.; Purg.—**USES:** Habitual constip.; us'ly used as Confect. of Senna.—**DOSE:** Lax., 4–8 Gm. (1–2 dr.); purg., 30–60 Gm. (1–2 oz.).

Cassiterite—Mineral

Tin-Stone; Tin Ore.—**OCCUR.:** England (Cornwall); Bohemia (Zinnwald; Joachimsthal); Saxony; Sweden; Finland; E. Indies; New So. Wales; Bolivia; Mexico; U. S.—**COMPOS.:** SnO₂.—**CRYST. SYST.:** Tetrag.—**LUSTER:** Adamantine to dull.—**COLOR:** Brown, black, or red.—**STREAK:** Wh. or v. light-brown.—**FRACT.:** Uneven to subconch.; brittle.—**HARDN.:** 6–7.—**SP. GR.:** 6.8–7.1.—**USES:** Source of metal. Sn; manuf. Sn salts.

Castanea—N.F. V

Chestnut.—Lvs of Castanea dentata (Marshall) Borkhausen, Fagaceæ.—**HABIT.:** North America (Maine to Florida, west to Ont., Mich. & Arkansas).—**CONSTIT.:** Tannin; gum; albumin; resin.—**ACTION:** Tonic; Astring.; Mild Sed.—**USES:** Popular remedy in whoop-cough.—**DOSE:** 2–8 Gm. (30–120 grn.); aver. dose 4 Gm. (1 dr.).—**Fl'dextr.,** 2–8 cc. (30–120 M).

Castor

Canadian & Siberian Beaver.—Dried preputial follicles, w. their secretions, of the common

beaver, Castor Fiber, L. Rodentia.—**HABIT.**: Northern Hemisphere, betw. 33° & 68° north latitude.—**Follicles** in pairs, ea. abt 3 inches long & 1–4 oz. in weight, club-shaped, wrinkled, brown or blackish; contents brown, hard, friable; peculiar odor; acrid, nauseous, bitter taste; Siberian (Russian) castor somewh. larger than the Canadian castor. Alcohol dissolves abt one-half.—**CONSTIT.**: Volat. oil (abt 2%); resin (40%–70%); castorin; salicin; cholesterol; benzoic acid; salicylic acid.—**ACTION**: Stim.; Antispasm.; Emmen.—**USES**: Especially as nervine in hysteria, chorea, & epilepsy; & to stimulate a weak heart.—**DOSE**: 0.12–1 Gm. (2–15 grn.) sev'l t.p.d.—**Tr.** (1:20, B.P.C.), 2–4 cc. (30–60 M).

CASTOR OIL—see Oil Castor

CASTORITE—see Petalite

CATARIA—see Catnep

CATCH-WEED—see Galium

Catechin

Catechuic, or Catechinic, Acid.— $C_{15}H_9O(OH)_5 + 4H_2O = 362.25$.—**Fr.** catechu.—**Alm.** wh. cryst. powd.—**SOL.**: W., A., acetic ether, alkalies.—**MELT.**: 217° C.—**USES**: *Techn.*, as a dye, & in tanning.

CATECHIN MONOANHYDRIDE—see Acid Catechutannic

CATECHOL—see Pyrocatechin

CATECHU—see Gambir

Catechu, Black—B.P.

Cutch; Cachou; Pegu Catechu; Cashoo.—**Extr. prep.** fr. heartwood of *Acacia Catechu* (L. fil.), Willd. (& A. Suma, Kurz, P.G.) Leguminosæ.—**HABIT.**: India; Hindustan; Ceylon; natur. in Jamaica.—**CONSTIT.**: Catechutannic acid (25%–35%); acatechin (2%–10%); catechu red; quercetin; gum; coloring matter.—**ACTION**: Strong. Astring.; Mild Tonic.—**USES**: *Medic.*, diar., gonorr., leucorr., gleet, hemorrh., irrit. coughs, spongy gums, &c.—*Techn.*, in tanning; dyeing fabrics brown & black; staining wood.—Also in toilet preparations (mouth washes, powd., gargles, &c.).—**DOSES**: 0.3–2 Gm. (5–30 grn.).—**Aqu. extr.**, 0.3–1.3 Gm. (5–20 grn.).—**Fl'dextr.**, 0.6–2 cc. (10–30 M).—**Tinct.** (1:5) 2–4 cc. (30–60 M).—**Comp. tinct.** (catechu & cassia cinnamon), 2–12 cc. (30–180 M).—**INCOMP.**: Iron comp'ds, gelatin, lime-W., $HgCl_2$, $ZnSO_4$.

CATECHU, PEGU—see Catechu, Black

Catha—B.P.C.

Arabian, or Abyssinian, Tea; Kat; Kath.—**Lvs & twigs** of *Catha edulis*, Forskall, Celastrinæ.—**HABIT.**: Abyssinia; Southwestern Arabia.—**CONSTIT.**: Cathine; cathidine; cathinine; vol. oil; sugar; tannin.—**ACTION**: Stimulant Narcotic.—**USES**: The lvs are chewed; or used in form of infusion, to ward off hunger & fatigue.

CATHARTIN—see Acid "Cathartic"

CATMINT—see Catnep

Catnep—N.F. V

Cataria; Catnip; Catmint.—**Herb** of *Nepeta Cataria*, L., Labiatæ.—**HABIT.**: Europe; Asia; natur. in U. S.—**CONSTIT.**: Vol. oil; tannin.—**ACTION**: Carmin.; Sed.; Emmen.—**USES**: Infantile colic, hystér., chlorosis, amenorr., dysmenorr., &c.—**DOSE**: *Aver.*, 4 Gm. (1 dr.).—**Fl'dextr.**, 2–8 cc. (30–120 M).

CATNIP—see Catnep

CAT'S-HAIR—see Euphorbia

Caulophyllin (Concentration)

Resinoid fr. root *Caulophyllum thalictroides*, Mich. (Blue Cohosh).—**Brown powd.**—**SOL.**: A.—**ACTION**: Diur.; Diaph.; Anthelm.; Emmen.—**USES**: Parturition. Claimed to have direct influence on uterus.—**DOSE**: 0.03–0.25 Gm. ($\frac{1}{2}$ –4 grn.).

Caulophyllum—N.F. V; B.P.C.

Blue Cohosh; Pappoose Root; Squaw Root.—**Dried rhizome & roots** of *Caulophyllum thalictroides*, Mich., Berberidæ.—**HABIT.**: Canada to North Carolina, Missouri & Nebraska; Japan.—**CONSTIT.**: Leontin; caulophylline (methylcystine); saponin; 2 resins, &c.—**ACTION**: Diuret.; Emmen.; Anthelmintic; Demulc.; Diaphor.; Antispasm.—**USES**: Amenorr., dropsy, colic, epilepsy, cramp, & parturition.—**DOSE**: 0.3–2 Gm. (5–30 grn.); *aver. dose*, 0.5 Gm. (8 grn.).—**Alcoh. extr.**, 0.12–0.3 Gm. (2–5 grn.).—**Liq. extr.**, 0.6–2 cc. (10–30 M).

CAY NOTE—see Ephedra

CAYENNE PEPPER—see Capsicum

Ceanothin (Concentration)

Fr. *Ceanothus americanus*, L. (New Jersey Tea).—**Brown powd.**—**ACTION**: Purg.; Alter.—**USES**: Syph., dysent., & sore throat.—**DOSE**: 0.06–0.12 Gm. (1–2 grn.).

Cedrin

Bitter prin. fr. seeds *Simaba Cedron*, Planch.—**Colorl. cryst.**; bitter taste.—**SOL.**: A.: sltly cold, more eas. boil., W.—**ACTION**: Antiperiodic.—**USES**: Malaria, yellow fever, septicæmia.—**Doses** of 0.004 Gm. ($\frac{1}{16}$ grn.) hypoderm. cause dizziness.

CELANDINE—see Chelidonium

Celery Seed & Root—N.F. V; Fr. Cod.

Dried ripe fruit (& root, Fr. Cod.) of *Apium graveolens*, L., Umbelliferae.—**HABIT.**: Southern Europe; cult. everywhere.—**CONSTIT.**: *Root*: Mannite; inosite; mucilage; fat; volat. oil; apiol; sugar.—*Seeds*: Volat. & fixed oil; bitter extractive; resin.—**ACTION**: *Root*, Aper.; Antirheum.; Diuret.; Nerve Tonic.—*Seeds*, Diuret.; Febrif.; **USES**: *Extern.*, as stim. anodyne poultice.—*Intern.*, in dropsy, Bright's dis. & intermit. fevers.—**DOSE** (*Root & Seeds*): 1–2 Gm. (15–30 grn.); *aver. dose* 2 Gm. (30 grn.).

CELESTINE—see Celestite

Celestite—Mineral

Celestine.—COMPOS.: SrSO_4 .—CRYST. SYST.: Rhomb.—LUSTER: Vit. somet. pearly on the basal-pinacoid.—COLOR: Light-blue, wh., reddish.—STREAK: Wh.—FRACT.: Uneven.—HARDN.: 3–3.5.—SP. GR.: 3.95–3.97.—USES: Prep. of Sr salts.

Celloidin—Shreds

A form of pyroxylin.—Tough, stly milky-wh., transp. gelat. tablets, chips, or shreds.—Supplied usually as shreds immersed in water.—SOL.: All prop. in mixt. equal parts A. & E.—USES: *Extern.*, in solut. (1 celloidin in 4 absol. A. & 4 E.) inst. of collodion on wounds, etc.—*Techn.*, imbedding sections (1:8–5 solut.) in microscopy; also in electrotechn., photography (celloidin paper), galvanoplasty, &c.

CELLON—see Acetylene Tetrachloride

Celluloid

Pyralin; Zylonite.—Substee prep. fr. gun cotton & camphor.—Colorl., amorph. mass.—SOL.: Acetone. Softens in boil. W.—USES: *Techn.*; plastic material f. manuf. toilet articles; toys; substitute f. amber, ivory, ebonite, tortoise shell; photographic films; also in surgery, f. bandages, & in dentistry as substitute f. rubber.

Cellulose Acetates

Sev'l of these comp'ds are known, e.g., the triacetate, $n(\text{C}_6\text{H}_7\text{O}_2[\text{CO}_2\text{CH}_3]_3)$, sol. in glac. acet. acid, but insol. in W., A., E.; tetracetate, $\text{C}_6\text{H}_5\text{O}(\text{CO}_2\text{CH}_3)_4$, insol. W., A., E., acet. acid, methyl A.; & pentacetate, $\text{C}_6\text{H}_5(\text{CO}_2\text{CH}_3)_5$, insol. W., but sol. in A.—All are obt'd by treat'g cellulose w. acetic anhydride at var. temperatures for different lengths of time.—Each forms an amorph., colorl. to yellowish, non-inflamm. mass.—USES: Manuf. rubber & celluloid substitutes; moninflamm. photographic & cinema films; manuf. artif. silk, aeroplane dopes, varnishes, & lacquers; waterproofing fabrics, & rendering balloons gas-tight; sizing & finishing fabrics, coating skins; manuf. filaments & phonograph records; insulating electric wires, etc.

Centauria—N.F. V

Bitter Herb; Bloodwort.—Dried flowering plant of *Erythraea Centaurium*, Pers., Gentianaceæ.—HABIT.: Europe; U. S.—CONSTIT.: Volat. oil; resin. erythrocentaurin.—ACTION: Bitter Tonic; Febrif.—USES: Weak appetite, fever, &c.—DOSE: Herb, 0.6–4 Gm. (10–60 grn.); aver. dose 2 Gm. (30 grn.).—Aqu. extr., 0.3–2 Gm. (5–30 grn.).—Tr., 4–8 cc. (1–2 fl. dr.).

Cephaeline—B.P.C.

$\text{C}_{28}\text{H}_{38}\text{N}_2\text{O}_4 = 466.46$.—Alkaloid accompanying emetine in ipecac.—Snow-wh., fine, interlacing need.; very unstable; rapidly turn yellow on expos. to light.—SOL.: A., B., C., caustic alkali soluts, & acids; stly cold more eas. hot. E.—MELT.: 96° – 102° C. (Paul & Cowley).—ACTION: Expectorant; Emetic, more powerful & toxic than emetine.—USES: As of emetine.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.).

Cephaeline Hydrochloride

$\text{C}_{28}\text{H}_{38}\text{N}_2\text{O}_4 \cdot 2\text{HCl} = 539.40$ (Hesse).—Amorph., wh. to yellowish powd.—The crystalline base is very unstable.—SOL.: W. & A.—Much more eas. affected by light than emetine hydrochloride.—USES: Preferable to emetine as emetic.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.).

Cerasin (Concentration)

Prunin.—Fr. *Prunus serotina*, Ehrhart (Wild Cherry).—Brown powd.—SOL.: A.—ACTION: Bitter Tonic; Sed.; Expector.—USES: Cough in phth., bronch., & colds; gen'l debil., & palp. of heart.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

Cerasin from Gum

Metarabic, or Metagummic, Acid.—Fr. gum arabic by heat. Native in cherry & beet gums.—Wh., insipid powd.

Cerberid

$\text{C}_{25}\text{H}_{38}\text{O}_{12} = 530.43$.—Glucoside fr. fruits of *Thevetia Yecotli*.—Amorph., yellow powd.—SOL.: W.—ACTION: Cardiac Tonic.

Cerebrin

Phrenosin.—Approx., $\text{C}_{70}\text{H}_{140}\text{O}_{13}\text{N}_2 = 1217.49$.—Nitrogenous, phosphorus-free proximate principle fr. brain substance (not a so-called "animal extract").—Yellowish-white, cryst. powd.—SOL.: B., C., hot A. & hot glac. acetic acid; dil. alkalies; stly in E., & in acetone; swells up in hot W.—MELT.: 170° – 176° C.

CEREBRININ—see Cerebrum

Cerebrum—Dried, Powdered

Cerebrinin; Alpha-cerebrin.—Defatted & dried gray brain substance of calves.—1 part = 5 parts of the fresh organ.—USES: Neurasthenia, chorea, agoraphobia, melancholia & o. mental affect., epilepsy, migraine, tetanus, psychoses. &c.—DOSE: 0.5–1 Gm. (8–15 grn.) single; 2–4 Gm. (30–60 grn.) p.d.

Ceresin—White

Purified Ozokerite; Earth Wax; Mineral Wax; Cerosin; Cerin.—Ozokerite purified by treat. w. conc. H_2SO_4 & filtration through bone-black.—OCCUR.: Boryslav (Galicia); Lake Baikal; Utah; Tex.—Wh., odorl., tastel., waxy cakes; fracture very much like that of white wax.—SOL.: Abt 35 absol. A.; also B., C., benzoin, hot oils; insol. in W.; very stable toward oxid'g agents; non-saponifiable.—MELT.: 61° – 78° C.—SP. GR.: 0.91–0.92.—CONSTIT.: Ceresin is a hydrocarbon of complex compos.—USES: Substit. f. white wax; size; candles; making bottles f. holding HF; lubricants; wax figures, waxed paper & cloth, polishes, wood filler, electrical insulators, water proofing fabrics, etc.—NOTE: See also Paraffin.

do. —Yellow

Partly purified ozokerite.—HABIT.: As of preceding.—Yellow, tastel., wax-like cakes or lumps; faint odor; very stable toward oxid'g agents.—SOL., MELT., SP. GR., CONSTIT., & USES: As of ceresin, white.

CEREUS, LARGE-FLOWERED } see Cactus Grandi-
CEREUS, NIGHT-BLOOMING } florus

CERIN—see Acid Cerotic; Ceresin, White

Cerite—Mineral

OCCUR.: Tunaberg.—COMPOS.: $(\text{SiO}_3)_3\text{Ce}_2(\text{OH})_3(\text{CeO})(\text{CaFe})$; (Ce = Ce, La, Nd, Pr).—CRYST. SYST.: Rhomb.—COLOR: Betw. clove-brown & cherry-red to gray.—HARDN.: 5.5.—SP. GR.: 4.86.—USES: Source of rare metals.

Cerium

Ce = 140.25; disc. by Hiesinger & Berzelius in 1803, & named in honor of the planet Ceres.—Iron-gray, ductile, mall. metal.—SOL.: Dil. H_2SO_4 , HNO_3 , HCl ; decomp'd by cold W. slowly, & by hot W. rapidly.—SP. GR.: 6.7 at 15°C . (Hermann).—MELT.: 640°C .—Tarnishes in moist, but stable in dry, air.—USES: *Techn.*, manuf. gas lighters, ferro-cerium (spark metal); as catalyst in manuf. NH_3 .

Cerium Acetate—Cerous

$\text{Ce}(\text{C}_2\text{H}_3\text{O}_2)_3 + 1\frac{1}{2}\text{H}_2\text{O} = 344.38$.—Wh. to reddish-wh., cryst. powd.—SOL.: W.

Cerium Benzoate—Cerous

$\text{Ce}(\text{C}_7\text{H}_5\text{O}_2)_3 + 3\text{H}_2\text{O} = 557.52$.—Wh. to reddish-wh. powd.—SOL.: Sltly hot W., & hot A.

Cerium Bromate—Cerous

$\text{Ce}(\text{BrO}_3)_3 \cdot 9\text{H}_2\text{O} = 686.15$.—Reddish wh., cryst. mass.—SOL.: Eas. W.

Cerium Bromide—Cerous

$\text{CeBr}_3 + 7\text{H}_2\text{O} = 506.12$.—Fr. $\text{Ce}(\text{OH})_3$ & HBr .—Reddish-wh., deliq. cryst.; us'ly cont. traces of La & Di.—SOL.: Eas. W., A.—CAUT.: Keep well stoppered.

Cerium Carbonate Merck—Cerous

$\text{Ce}_2(\text{CO}_3)_3 + 5\text{H}_2\text{O} = 550.60$.—Wh. powd.; us'ly cont. traces of La & Di.—SOL.: Dil. mineral acids; insol. W.

Cerium Chloride—Cerous—Pure

$\text{CeCl}_3 + 7\text{H}_2\text{O} = 372.74$.—Colorl., deliquescent, transp., cryst., free fr. o. earths.—SOL.: Very eas. W. & A.—USES: Incandesc. lighting.

do. Merck

Reddish-wh. cryst., cont'g traces of La & Di.—SOL.: Very eas. W. & A.

Cerium Citrate—Cerous

$\text{Ce}(\text{C}_6\text{H}_5\text{O}_7) + 3\frac{1}{2}\text{H}_2\text{O} = 392.38$.—Wh. powd.—SOL.: Dil. mineral acids; insol. W.

CERIUM DIOXIDE—see Cerium Oxide

Cerium Hypophosphite—Cerous

$\text{Ce}(\text{PH}_2\text{O}_2)_3 + \text{H}_2\text{O} = 353.43$.—Wh. to reddish-wh. powd.—SOL.: Dil. mineral acids.—USES: Phthisis.

Cerium Iodide—Cerous

$\text{CeI}_3 + 9\text{H}_2\text{O} = 683.15$.—Reddish-wh. cryst.; decomp. readily w. separ. of I.—SOL.: v. eas. W., A.—CAUT.: Keep well stoppered.

Cerium Nitrate—Cerous—Pure

$\text{Ce}(\text{NO}_3)_3 + 6\text{H}_2\text{O} = 434.37$.—Colorl., transp. cryst., free fr. o. earths.—SOL.: Very eas. W. & A.—ACTION: Antisep.; Tonic; Sedat.—USES: *Intern.*, as of Bi salts in dyspep., pyrosis, chron. vomit. (partic. of pregnancy), & chron. diarrh.—*Techn.*, 1% cerous nitrate w. 99% thorium nitrate used in manuf. of incand. mantles. Also as antiseptic (a 1:1000 solut. checks growth of all bacteria).—DOSE: 0.06–0.3 Gm. (1–5 grn.).

do. Merck

Reddish-wh. cryst.; cont's traces of La & Di.—SOL.: Eas. W. & A.

Cerium Oxalate Merck—U.S.P. IX

Mixt. of oxalates of Ce, Di, La, & o. associated elements; U.S.P.—Wh. or sltly pink, odorl., tastel. powd.—SOL.: Hot dil. H_2SO_4 or HCl ; insol. cold dil. acids, W., A. E., alkalies.—ACTION: Sed.; Nerve Tonic.—USES: *Intern.*, vomit. of pregn., seasickn., epilepsy, migraine, chronic diar., gastric crises in tabes, cardialgia, hyst.; gastric ulcer, hyperchlorhydria, & hunger pain.—*Techn.*, isolating various elements of cerium group (Ce, La, Nd, Pr).—DOSE: 0.12–0.6 Gm. (2–10 grn.) 3 t.p.d.; aver. dose, 0.2 Gm. (3 grn.).—MAX. D.: 0.6 Gm. (10 grn.).

do. —Effervescent.—B.P.C.

Abt 6% cerium oxalate.—DOSE: 2–4 Gm. (30–60 grn.).

Cerium Oxide—Ceric—Anhydrous, Pure

Cerium Dioxide.— $\text{CeO}_2 = 172.25$.—Salmon-pink, heavy powd.; free fr. o. earths.—SOL.: HCl or HNO_3 w. evol. of Cl ; insol. W.—USES: As contrast substce f. roentgen-ray investigations.

do. Merck—Anhydrous, Technical

Rust-colored powd.; cont's some La_2O_3 , Nd_2O_3 , Pr_2O_3 , or PrO_2 .—SOL.: As of precd'g.—USES: *Techn.*, as cerium oxalate; in chem. analysis f. detect. strychnine (Sonnenschein).

Cerium Salicylate—Cerous

$\text{Ce}(\text{C}_7\text{H}_5\text{O}_3)_3 = 551.47$.—Wh. to reddish-wh. powd.; usually cont's some La & Di.—INSOL. W.

Cerium Sulphate Merck—Ceric

$\text{Ce}(\text{SO}_4)_2 + 4\text{H}_2\text{O} = 404.43$.—Reddish-yellow cryst.; cont. some La & Di.—SOL.: In small quant. W., & in dil. H_2SO_4 ; w. much W. decomp's w. separ. of basic salt.—USES: *Intern.*, incipient tuberculosis.—*Techn.*, in photo. as reducer; dyeing & printing fabrics w. aniline black; quant. determ. NO_2 ; also test f. santonin (Jaworowski), & phenols (Orloso).—DOSE: 0.08–0.1 Gm. ($1\frac{1}{2}$ – $1\frac{1}{2}$ grn.) in 2% aqu. solut. intraven., 1 inj. being given p. day for 20 days.

do. Merck—Cerous

$\text{Ce}_2(\text{SO}_4)_3 + 8\text{H}_2\text{O} = 712.81$.—Sm. pink cryst.; cont's traces of La & Di.—SOL.: 6 cold, 60 hot, W.—USES: Develop. aniline black. Said to be superior to vanadium for this purpose.

Cerium Valerate—Cerous

$\text{Ce}_2(\text{C}_5\text{H}_9\text{O}_2)_6 + 5\text{H}_2\text{O} = 977.16$.—Wh. to reddish-wh. powd.; cont's some La & Di.—SOL.: v. sltly W.—ACTION: Nervine; Tonic.—USES: Uncontrollable vomit. of pregnancy, gastric crises in tabes & hysteria, tuberculous coughs, etc.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.).

Cerium & Ammonium Nitrate—Ceric

$\text{Ce}(\text{NO}_3)_4 \cdot 2\text{NH}_4\text{NO}_3 + 1\frac{1}{2}\text{H}_2\text{O} = 575.40$.—Sm., orange-red, prismatic. cryst.—SOL.: v. eas. W., & A.; alm. insol. conc. HNO_3 .—Easily reduc. to colorl. cerous salt.—USES: Incandesc. lighting.

do. —Cerous

$\text{Ce}(\text{NO}_3)_3 \cdot 2\text{NH}_4\text{NO}_3 + 4\text{H}_2\text{O} = 558.43$.—Large, white transp. cryst.—SOL.: v. eas. W., A.—USES: In incandescent lighting.

CEROLIN—see Yeastone

CEROSIN—see Ceresin, White

CERUSE, or CERUSSA—see Lead Carbonate

CERUSSA ANTIMONII—see Potassium Antimonate

Cerussite—Mineral

COMPOS.: 77.5% PbCO_3 .—OCCUR.: U. S.; New So. Wales; Bohemia; Germany; Hungary; Sweden; Spain, & elsewhere.—CRYST. SYST.: Rhomb.—LUSTER: Adamantine or greasy to silky.—COLOR: Wh., gray, or brown.—STREAK: Wh.—FRACT.: Conch.—HARDN.: 3–3.5.—SP. GR.: 6.46–6.574.—USES: Important lead ore.

Cesium

Cs = 132.81; disc. by Bunsen & Kirchhoff in 1860.—Silver-wh., duct. metal; in contact w. W., forms hydroxide w. evol. of H which ignites in air.—SOL.: A.; decomp'd by W.—SP. GR.: 1.87.—MELT.: 26° – 27° C.—BOIL.: 670° C.

CESIUM ALUM—see Aluminum & Cesium Sulphate

CESIUM BICHROMATE—see Cesium Dichromate

Cesium Bisulphate

Cesium Disulphate; Acid Cesium Sulphate.— $\text{CsHSO}_4 = 229.88$.—Rhombic, colorl. prisms.—SOL.: W.

Cesium Bitartrate

Acid Cesium Tartrate.— $\text{CsHC}_4\text{H}_4\text{O}_6 = 281.87$.—Wh., rhomb. cryst.—SOL.: W.—USES: In nervous heart palpitation.—DOSE: 0.2–0.3 Gm. (3–5 grn.) 3 t.p.d.

Cesium Bromide

$\text{CsBr} = 212.73$.—Colorl., cryst. powd.—SOL.: W.; sltly in A.—USES: In nervous heart palpitation.—DOSE: 0.2–0.3 Gm. (3–5 grn.).

Cesium Carbonate—Normal

$\text{Cs}_2\text{CO}_3 = 325.63$.—Wh., v. deliq. cryst. powd.—SOL.: v. eas. W., abt 10 A.—USES: Manuf. mineral waters, & o. cesium salts.

Cesium Chloride

$\text{CsCl} = 168.27$.—Colorl., deliquescent. cryst.—SOL.: v. eas. W., A.—USES: Brewing; manuf.

mineral waters; test f. SiO_2 (Herrmann), indium (Huysse), & Cu (Meerburg).

Cesium Cyanide

$\text{CsCN} = 158.82$.—Colorl. cryst.—SOL.: W.; insol. A.

Cesium Dichromate

Cesium Bichromate.— $\text{Cs}_2\text{Cr}_2\text{O}_7 = 481.62$.—Reddish-yellow cryst.—SOL.: W.

CESIUM DISULPHATE—see Cesium Bisulphate

CESIUM HYDRATE—see Cesium Hydroxide

Cesium Hydroxide

Cesium Hydrate.— $\text{CsOH} = 149.82$.—Fused, colorl. or yellowish, v. deliquescent. cryst. mass; strongly alkaline react.—SOL.: v. eas. W., w. much heat; A.—CAUT.: Keep well stoppered.

Cesium Iodide

$\text{CsI} = 259.73$.—Colorl., cryst. powd.—SOL.: W., A.—Succedaneum f. KI; said to be without injurious action on heart.—USES & DOSES: As of potass. iodide.

Cesium Nitrate

$\text{CsNO}_3 = 194.82$.—Lustr., colorl. prisms; salt-peter taste.—SOL.: Abt 10 cold, more sol. boil'g, W.; v. sltly in A.—MELT.: 414° C.

Cesium Sulphate

$\text{Cs}_2\text{SO}_4 = 361.68$.—Colorl. prisms.—SOL.: v. eas. W.; insol. A.—USES: Manuf. mineral waters.

CESIUM TARTRATE, ACID—see Cesium Bitartrate

Cesium & Ammonium Bromide

$\text{CsBr} \cdot 3\text{NH}_4\text{Br} = 506.61$.—Wh., cryst. powd.—SOL.: W.—ACTION: Nerve Sed.—USES: Epilepsy, &c.—DOSE: 1–3 Gm. (15–45 grn.) 1 or 2 t.p.d.—MAX. D.: 6 Gm. (90 grn.) per day.

Cesium & Rubidium Bromide

$\text{CsBr} \cdot \text{RbBr} = 378.10$.—Wh., cryst. powd.—SOL.: W.; insol. A.—USES: Inst. of KBr.

Cesium & Rubidium Chloride

$\text{CsCl} \cdot \text{RbCl} = 289.18$.—Colorl., cryst. powd.—SOL.: Eas. W.; insol. A.—USES: Inst. of KBr.

Cesium & Rubidium & Ammonium Bromide

$\text{CsBr} \cdot \text{RbBr} \cdot 6(\text{NH}_4\text{Br}) = 965.86$.—Wh., cryst. powd.—SOL.: W.—ACTION: Nervine; Anti-spasm.—USES: Nervous affections & epilepsy.—DOSE: 1–3 Gm. (15–45 grn.) 1–2 t.p.d.—MAX. D.: 6 Gm. (90 grn.) p.d.

CESIUM-RUBIDIUM ALUM—see Aluminum & Cesium & Rubidium Sulphate

CETACEUM—see Spermaceti

Cetin

Cetyl-ester of Palmitic Acid.— $\text{C}_{15}\text{H}_{31}\text{COOC}_{16}\text{H}_{33} = 480.67$.—Chief constit. of spermaceti.—Wh., cryst. fatty substce.—SOL.: Abs. A., E.; insol. W.—MELT.: Abt 50° C.

Cetrarin

Cetraric Acid.— $C_{20}H_{18}O_9 = 402.24$.—Bitter prin. fr. *Cetraria islandica*, Ach.—Wh., cryst., bitter powd.—SOL.: In alkalies & their carbonates; sltly in boil. A.—ACTION: Hematinic; Stom.; Expector.; Antemetic.—USES: To incr. peristalsis, & in chlorosis (incr. number red & wh. corpuscles in blood), incip. phth., bronchitis; digest. disturb. w. anemia, persist. vomiting, &c.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) sev'l t.p.d. bef. meals.

Cetyl Iodide

$C_{16}H_{33}I = 352.26$.—Fr. cetyl alcohol, by I w. P.—Fine leaflets.—SOL.: A.—MELT.: $22^\circ C$.

CEVADILLA—see Sabadilla

CEVADINE—see Veratrine

CEYLON CALUMBA—see Coscinium

CEYLON GELATIN, or ISINGLASS—see Agar

Chabazite—Mineral

OCCUR.: U. S.; Nova Scotia; Bohemia; Greenland; Iceland; Germany, etc.—COMPOS.: $Si_6O_{16}Al_2Ca_2 \cdot 8H_2O$, with $Si_4Al_2O_{16}Al_2Ca_2 \cdot 8H_2O$.—CRYST. SYST.: Hexag. rhombohedr.—LUSTER: Vitr.—COLOR: Light-red, wh., yellow, colorl.—STREAK: Wh.—FRACT.: Uneven.—HARDN.: 4.5.—SP. GR.: 2.08–2.16.

Chalcedony—Mineral

COMPOS.: Cryst. quartz aggregate.—LUSTER: Waxy & either transp. or transluc.—COLOR: Wh., grayish, blue, pale brown, dark-brown, black.—SP. GR.: 2.59–2.64.—USES: Jewelry.

Chalcocite—Mineral

Chalcocine; Copper Glance; Redruthrite.—OCCUR.: England (Cornwall); Bohemia; Norway; Siberia; Saxony; Tuscany; U. S.; Mexico; So. America.—COMPOS.: Cu_2S .—CRYST. SYST.: Rhomb.—LUSTER: Metallic, or dull when tarnished.—COLOR & STREAK: Dark lead-gray.—HARDN.: 2.5–3.—SP. GR.: 5.5–5.8.—USES: As copper ore.

CHALCOSINE—see Chalcocite

CHALK; DROP, PRECIPITATED, or PREPARED—see Calcium Carbonate

CHALYBITE—see Siderite

CHAMELEON MINERAL—see Potassium Permanganate

Chamomile—B.P.

Roman or Garden Chamomile; Ground Apple.—Dried flower heads of *Anthemis nobilis*, L., Compositæ, fr. cultivated plants.—HABIT.: Southern & Western Europe; cult. in Germany; Great Britain, France, Belgium; somewh. naturalized in the U. S.—CONSTIT.: Volat. oil (0.8%–1%); bitter glucoside (anthemic acid); antheasterol; anthemene (anthemidin); resin; tannin.—ACTION: Antispasm.; Diaphor.; Stim.; Tonic; Carmin.; Emmenag.; warm infus. is Emetic.—USES: Colds, fevers, worms, etc.—DOSES: 1–4 Gm. (15–60 grn.).—Aqu. extr., 0.3–1 Gm. (5–15 grn.).—Fl'dextr., 2–4 cc (30–60 M).

CHAMPACA CAMPHOR—see Champacol

Champacol

Champaca Camphor.— $C_{17}H_{30}O = 250.33$.—Camphor fr. champaca wood (fr. *Michelia Champaca*, L.).—CRYST.—SOL.: E., A.—SP. GR.: 0.907–0.935.—MELT.: Abt $91^\circ C$.—BOIL.: $288^\circ C$.

CHANNING'S SOLUTION—see Solution Mercury & Potassium Iodide

"CHAR"—see Charcoal, Animal, Technical

Charcoal Animal—Medicinal

Bone Charcoal; Boneblack.—Fine black powd.—USES: *Intern.*, in cholera, acute intestinal & gastrointestinal catarrhs, severe dysentery, & partic. in poisoning by As, P, $HgCl_2$, & alkaloids, etc. (because of its powerful adsorbent properties).—DOSES: In diarrhea, dysentery, etc. 2–3 tablesp. w. W.; in typhoid & cholera, 5–10–25 Gm. ($1\frac{1}{4}$ – $2\frac{1}{2}$ –6 dr.) accord'g to severity of symptoms; in poisoning by As, P, $HgCl_2$, alkaloids, fungi, 10–25 Gm. ($2\frac{1}{2}$ –6 dr.) w. W., followed by lavage, the treatment being repeated once more, & then followed by 5 Gm. (75 grn.) ev. 4–5 hrs.—CAUT.: Keep fr. air in well-stopp'd bts.

do. Merck—U.S.P. VIII

do. Merck—Pure—Moist

do. Merck—Purified—Moist

do. —Technical

Boneblack; Ivory Black; "Char"; Bone Charcoal; Spodium.—Fine black powd.—USES: Decolorizer; deodorizer; filling gas masks.

Charcoal Merck—From Sponge

Burnt Sponge.—Cont's a slt quant. iodine.—Black powd.—ACTION: Alternative.—USES: In homeopathy inst. of iodides in struma, scrofula, etc.—DOSE: 0.5–2 Gm. (8–30 grn.) sev'l t.p.d.

do. —From Wood.—U.S.P. X

Vegetable Charcoal.—Prep'd fr. soft wood.—Black, odorl., tastel. powd.—USES: *Intern.*, dyspepsia, flatulence, intestinal distension, diarrhea, dysentery, etc.—*Extern.*, occasionally as poultice; in tooth powders.—*Techn.*, remov'g unpleasant odor fr. decompos'g matter; as catalyst in various chem. operations; manuf. calc. carbide; decolorizing & filtering medium; gas absorbent; in brewing as deodorant; manuf. gunpowder; pigment; "sweetening" cisterns, barrels, etc.; heat insulator; refining sugar; manuf. pig iron, artif. fertilizer, briquetted fuels, etc.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose 1 Gm. (15 grn.).

CHARCOAL-KAOLIN, MEDICINAL—see Ibol

CHAULMESTROL—see Ethyl Chaulmoograte

Chaulmoogra

Seeds of *Taraktogenes Kurzii*, King, Bixaceæ.—HABIT.: East Indies (Burmah).—CONSTIT.: Fixed oil (chaulmoogra oil, abt 50%), cont'g gynecardic acid, palmitic acid, & a phytosterol.—USES: The oil (*q.v.*) is believed to be a specific in leprosy, secondary syphilis, rheum.,

scrofula, & phthisis.—DOSE: 0.2–0.36 Gm. (3–6 grn.) of powd. seeds.

Checken

Chekan; Chequen.—Lvs of *Eugenia Chequen*, Molina, Myrtaceæ.—HABIT.: Chili.—CONSTIT.: Checkenon; checken bitter; chekenin; chekenetin; volat. oil; tannin.—ACTION: Expector.; Diuret.; Anticatatarrh.—USES: Catarrhal affect. of respir. & genitourinary organs.—DOSE: Fl'dextr. 4–12 cc. (1–3 fl. dr.).

CHECKERBERRY—see *Gaultheria*; *Mitchella*

CHEESE-FLOWER—see *Mallow*

CHEKAN—see *Checken*

CHELANDINE—see *Chelidonium*

CHELENE—see *Ethyl Chloride*

Chelerythrine

$C_{21}H_{17}NO_4 + C_2H_5OH = 393.31$.—Alkaloid fr. root *Sanguinaria canadensis* (also *Chelidonium majus*).—Reddish-wh., cryst. powd.—SOL.: Sltly A., E.; eas. C., amyl A., B., petrol. ether, oils, &c.—MELT.: 203°–204° C.—ACTION: Cardiac poison; not used medic.

Chelidonium

$C_{20}H_{19}NO_5 + H_2O = 371.28$.—Alkaloid fr. *Chelidonium majus*, L.—Wh. to yellowish cryst.—SOL.: A., C., E., amyl alcohol; insol. W.—MELT.: 134°–136° C.—ACTION: Narcotic like morphine, but without increase of reflex action.—USES: As analgesic in gastric cancer, tumors of liver, & enteralgia; used only in form of its salts (*q.v.*).

Chelidonium Hydrochloride

$C_{20}H_{19}NO_5 \cdot HCl = 389.73$.—Wh. cryst.—SOL.: Sltly W. or A.—ACTION: Analgesic.—USES: Gastric & intest. pains, gastric ulcer, gastric carcinoma, hepatic tumors, etc.—DOSE: 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).

Chelidonium Phosphate

Wh., cryst. powd.—SOL.: W.—ACTION, USES, & DOSE: As of the hydrochloride.

Chelidonium Sulphate

$(C_{20}H_{19}NO_5)_2 \cdot H_2SO_4 = 804.60$.—Wh., cryst. powd.—SOL.: W.—ACTION, USES, & DOSE: As of the hydrochloride.

Chelidonium Tannate

Yellow powd.; abt 53% alkaloid.—SOL.: Hot A.; alm. insol. W.—ACTION, USES & DOSE: As of the hydrochloride.

Chelidonium

Celandine; Chelandine; Tetterwort.—Entire plant, *Chelidonium majus*, L., Papaveraceæ.—HABIT.: Europe; natur. in U. S.—CONSTIT.: Chelidonium, chelerythrine (pyrrhopine); chelidoxanthin; chelidonic acid; protopine; α -homochelidonium; β -homochelidonium; chelidysin (?); chelidonic acid (?); resin.—ACTION: Diuret.; Purg.; Stim.; Alter.; Diaphor.; Vulnery; Drastic Hydragogue.—USES: *Intern.*, in hepatic dis., gastralgia, asthma, spasmodic colic, lepra & cancer.—*Extern.*, the milky juice of the fresh plant is used as a caustic for removing

warts, corns, etc.; also as applic. in cancer, eczema, & o. skin dis.—DOSE: 1–4 Gm. (15–60 grn.).—Fl'dextr., 1–4 cc. (15–60 M); also extern. w. 10% aristol & resorcinol w. lanum.—Alcoh. extr., 0.3–0.6 Gm. (5–10 grn.) in scrofula, skin eruption, amenorrh., &c.—Aqu. extr., 0.3–1 Gm. (5–15 grn.); subcut., 0.5 cc. (8 M) of a mixt. eq. parts extr. & W., repeated every 2–5 days.—Tr. (Rademacher's), 0.3–1.3 cc. (5–20 M).

Chelonin (Concentration)

Fr. *Chelone glabra*, L. (Snake head).—Brown, bitter powd.—ACTION: Tonic; Aper.—DOSE: 0.06–0.12 Gm. (1–2 grn.).

Chenopodium—B.P.C.

American Wormseed; Mexican Tea; Spanish Tea; Jerusalem Tea; Ambrosia; Herba Botrys mexicanæ.—Fruit (also herb) of *Chenopodium Ambrosioides*, L., Chenopodiaceæ.—HABIT.: Central America; Canada; U. S.—CONSTIT.: Volat. oil (in both fruit [3.5%] & herb); resin.—ACTION: Anthelm.; Vermif.; Stomachic; Nervine; Emmen.—USES: Worms, chorea, asthma, & o. catarrhal affect.—DOSE: 1–4 Gm. (15–60 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

CHEQUEN—see *Checken*

CHERRY, BLACK, POISON—see *Belladonna Leaves*

Cherry-Laurel—B.P.; Fr. Cod.

Laurocerasus; Cherry-bay.—Fresh lvs of *Prunus Laurocerasus*, L., Rosaceæ.—HABIT.: Fr. Western Asia to Southern Europe.—CONSTIT.: Prulaurasin (laurocerasin) resembling amygdalin; tannin; sugar; fatty matter; prunase; phyllic acid; the lvs yield on an average 0.1% HCN.—ACTION: Anodyne; Antispasm.; Sedat.; Narcot.—USES: In form of cherry-laurel water like hydrocyanic acid.—DOSE: Of water (0.1% HCN) 2–8 cc. (30–120 M).

CHESTNUT—see *Castanea*

CHIASTOLITH—see *Andalusite*

Chicory—Fr. Cod.

Cichorium; Succory; Blue Daisy.—Lvs & root of *Cichorium Intybus*, L., Compositæ.—HABIT.: Europe; Asia; Northern Africa; natur. in U. S.—CONSTIT.: Bitter principle; resin; potassium salts. Root contains also volat. oil, tannin, inulin, & sugar.—ACTION: Aper.; Tonic.—USES: Root is alterative, & is used in jaundice & congest. of liver, inst. of extr. taraxacum; also, when roasted, as coffee surrogate.—DOSE: Lvs or root, 1–4 Gm. (15–60 grn.).—Alcoh. extr. of root, 1.3–2 Gm. (20–30 grn.).

CHILNITER, or SALTPETER, or SODA—see *Sodium Nitrate*

CHILLIES—see *Capsicum*

Chimaphila—N.F. V; B.P.C.

Pipsissewa; Prince's Pine; Bitter Wintergreen; Rheumatism Weed; Ground Holly; Pyrola; Pine Tulip.—Dried lvs of *Chimaphila umbellata* (L.), Barton, Ericaceæ.—HABIT.: Europe-Asia; North America.—CONSTIT.: Chimaphilin; arbutin; ericolin; urson; tannin; resin; sugar-gum.—ACTION: Tonic; Astring.; Diuret.; Ne;

phritic; Rubefac.—USES: Scrof. skin erupt., rheumat., & obstin. ulcers; diuret. in cardiac & renal dis.; surrogate for uva ursi.—DOSE: 1–3 Gm. (15–45 grn.); aver. dose 2 Gm. (30 grn.).

Chimaphilin (Concentration)

Extr. fr. *Chimaphila umbellata*, Bart. (Pipsis-sewa).—Dark-brown, bitter powd.—SOL.: A.—ACTION: Diur.; Tonic; Astring.—USES: Scrof., rheum., & Bright's dis.—DOSE: 0.12–0.2 Gm. (2–3 grn.).

CHINA BARK—see Quillaja

CHINA BLUE—see Soluble Blue

CHINA CLAY—see Kaolin

CHINA OIL—see Balsam Peru

CHINALDINE—see Quinaldine

CHINALGEN—see Analgen

CHINAPHTHOL—see Quinaphtol

Chineonal

Quinine Diethylbarbiturate Merck.— $(C_2H_5)_2C.(CO)_2(NH)_2CO.C_{20}H_{24}N_2O_2 = 508.46$.—Colorl., bitter, cryst. powd.; abt 64% quinine & abt 36% diethylbarbituric acid.—SOL.: Abt 400 W., 8 A., 12 C.; also in E.—MELT.: $132^\circ C$.—ACTION: Sed.; Antipyret; Narcot.—USES: Typhoid, malaria, acute bronchitis, influenza, neurasthenia; septic artic. rheum.; whoop-cough; neuralg., & seasickness.—DOSE: 0.3–0.6 Gm. (5–10 grn.) 1–2 t.p.d. or at one dose at night.—Children 0.2 Gm. (3 grn.) p.d.; in whoop-cough, 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) accord. to age 2–3 t.p.d.

do. —Tabl., ea. 0.3 Gm., Plain

do. —Tabl., ea. 0.1 Gm., & 0.2 Gm., Sugar Coated

CHINESE ANISE—see Star-Anise

CHINESE BLISTERING FLIES } see Mylabris

CHINESE CANTHARIDES }

CHINESE CINNAMON—see Cassia Bark

CHINESE GELATIN—see Agar

CHINESE GINGER—see Galanga

CHINESE ISINGLASS—see Agar

CHINESE RED—see Mercury Sulphide, Red

Chinese Wax

Insect Wax.—The secretion of an insect, *Coccus ceriferus*, Fabr., or *C. pela*, Westwood, deposited on the twigs & branches of a species of ash tree, in Western China.—Wh. to yellowish-wh., pract. odorl. & tastel. solid.—SOL.: Eas. B.; sltly A., E.—SP. GR.: 0.970 at $15^\circ C$.—MELT.: Abt $81^\circ C$.—CONSTIT.: Chiefly ceryl cerotate.—USES: Manuf. candles, leather & furniture polish; treating silk & cotton fabrics; sizing & glazing papers.

CHINETUM—see Quinetum

CHINIDINE—see Quinidine

CHINIUM—see Quinium

CHINOFORM—see Quinine Formate

CHINOIDINE—see Quinoidine

CHINOIODINE—see Quinoiodine

CHINOLINE—see Quinoline

CHINOLINE BLUE—see Cyanine

CHINONE—see Quinone

CHINOPYRINE—see Quinopyrine

CHINOSOL = Oxyquinoline Sulphate

CHINOTINE—see Quinidine

Chionanthin (Concentration)

Dried extr. fr. bark *Chionanthus virginica*, L.—Brown, bitter powd.—SOL.: A.—ACTION: Aper.; Diur.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Chionanthus—N.F. V

Fringe Tree; Snowdrop-tree.—Dried root-bark of *Chionanthus virginica*, L., Oleaceæ.—HABIT.: U. S. (Delaware to Florida & Texas).—CONSTIT.: Chionanthin (glucoside); saponin (?).—ACTION: Aper.; Diuret.—USES: Dropsy & mild constip.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose 2 Gm. (30 grn.).—Extr., 0.2–0.6 Gm. (3–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

CHIOS TURPENTINE—see Turpentine, Chian

Chirata—N.F. V; B.P.

Chiretta; Chirayita; Bitter Stick; East Indian Balmony.—Dried plant, *Swertia* (*Ophelia*) *Chirayita* (Roxb.), Hamilton, Gentianaceæ.—HABIT.: East Indies (Himalaya).—CONSTIT.: Chiratin; ophelic acid.—ACTION: Bitter Tonic; Febrif.; Stomachic; Lax.; Anthelm.—USES: Dyspep., debil., worms, fever.—DOSE: 0.3–2 Gm. (5–30 grn.); aver. d., 1 Gm. (15 grn.).—Fl'dextr., 0.3–2 cc. (5–30 M).—Aqu. extr., 0.5–1 Gm. (8–15 grn.).—Tr. (1:10), 2–4 cc. (30–60 M).

CHIRAYITA, or CHIRETTA—see Chirata

Chitin

Horny substce fr. carapaces of crabs & beetles.—Wh., amorph., semi-transp. mass.—SOL.: Conc. H_2SO_4 , HNO_3 , or HCl ; insol. ordinary solvents.

CHITOSAMINE HYDROCHLORIDE—see Glycosamine Hydrochloride

CHITTAM, or CHITTEM, or CHITTIM, BARK—see Cascara Sagrada

Chloracetone

Monochloroacetone; Monochlorated Acetone.— $CH_3.CO.CH_2Cl = 92.52$.—Fr. acetone & Cl_2 .—Colorl. liq.; pungent odor.—MISC.: A., C., E.; sltly W.—SP. GR.: 1.162 at $16^\circ C$.—BOIL.: $119^\circ C$.

Chloracetyl Chloride

Chloroacetyl Chloride.— $CH_2Cl.CO.Cl = 112.95$.—Fr. hot chloroacetic acid & PCl_3 .—Colorl. liq.; v. pungent odor; is decomp. by W.—SP. GR.: 1.495 at $0^\circ C$.—BOIL.: Abt 105° – $106^\circ C$.

Chloral—Anhydrous

Trichloroacetaldehyde; Chloral Anhydrous.— $CCl_3.CHO = 147.40$.—By pass. Cl into absol.

A., or into aqu. aldehyde.—Colorl., caustic, mobile liq.; pungent odor; unites w. W. to form chloral hydrate.—BOIL.: 96°–97° C.—SP. GR.: 1.512 at 20° C.—SOL.: W., A., E.—USES: Manuf. chloral derivatives; test f. alkaloids (Brunner-Strzyzowsky), digitalin (Dragendorff), volatile oils (Hehn), & morphine (Gabutti).

"CHLORAL"—see Chloral Hydrate

Chloral Alcoholic Merck

Chloral Ethyl-alcoholate.— $\text{CCl}_3\text{CH}(\text{OH})\text{O}\cdot\text{C}_2\text{H}_5 = 193.46$.—Fr. chloral by A.—Colorl., volatile cryst.—SOL.: A.; eas. but slowly in W. w. formation of chloral hydrate.—MELT.: 46° C.—BOIL.: Abt 115° C.—USES: Inst. of camphor in manuf. celluloid.

CHLORAL-ANTIPYRINE—see Hypnal

Chloral Camphorated—N.F. V; B.P.C.

Eq. pts camphor & chloral hydrate.—Transp., colorl., syrupy liq.—SOL.: A., E., oils, fats; insol. W., G.—ACTION: Analg.—USES: *Intern.*, neural., insomn., abdom. pains, cramps, migraine, etc.—*Extern.*, as loc. anesth. in chron. ecz., neuralg., rheumat., ear- & tooth-ache.—DOSE: 2–3 drops.

Chloral Carbolated

Chloralphenol; Phenolated Chloral.—Fr. eq. pts chloral & phenol (B.P.C.).—SOL.: W., A., G.—USES: As applic. on cotton to carious teeth in toothache & neuralg.

CHLORAL, "CROTON"—see Butyl-Chloral

CHLORAL ETHYL-ALCOHOLATE—see Chloral Alcoholic

CHLORAL, FORMAMIDATED—see Chloralformamide

Chloral Hydrate Merck—U.S.P. X—Loose Cryst.

Erroneously called "Chloral"; Trichlorethylideneglycol; Trichloraldehyde Hydrate.— $\text{CCl}_3\text{CH}(\text{OH})_2 = 165.41$.—Transp., colorl., rhomboidal cryst., or flat, wh., cryst. masses; peculiar pung. odor & taste; appreciably volatile on expos. to air.—SOL.: 0.25 W., 1.3 A., 2 C., 1.5 E., at 25° C., v. sol. olive oil, & freely in oil turp., U.S.P.—MELT.: 49°–53° C., B.P. —BOIL.: Abt 97° C. w. decomp'n into chloral & water.—ACTION: Hypn.; Antispasm.; Analg.; Antisep.—USES: *Intern.*, to prod. sleep; antid. to cocaine; puerperal eclampsia, mania, delir. trem., convuls., chorea, tetanus, scarlet fever, phth. night-sweats, hysteria, epilepsy, hepatic & renal calculi, hydrophobia, seasickness, local spasm, asthma, strangul. hernia, incont. urine, spasm, croup, & spasm of glottis.—*Extern.*, 1%–5% solut. for foul sores, irrit. ulc., & to destroy parasites.—*Techn.*, in microscopy.—DOSE: *Sedat.*, 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) ev. 2 hrs; *hypnot.*, up to 2 Gm. (30 grn.); aver. dose 0.5 Gm. (8 grn.).—MAX. D.: 3 Gm. (45 grn.) single, 6 Gm. (90 grn.) p.d.—Contraindicated in inflamed stomach; large doses must not be given in heart dis.; to children & the aged, give w. caution.—SYR. (B.P.; 1 fl. dr. = abt 11 grains), 2–8 cc. (30–

120 M).—In VETER. MED., *horses & cattle intern.*, as narcot. 40–50 Gm. (10–12½ dr.), & *rectally* 75–125 Gm. (18–30 dr.), & as sedat. 25–50 Gm. (6–12½ dr.); *pigs, sheep, goats*, 5–10 Gm. (75–150 grn.); *dogs*, 0.5–2–5 Gm. (8–30–75 grn.); *cats & fowl*, 0.25–2 Gm. (4–30 grn.)—ANTID.: Emetics, stomach siphon, cocaine hydrochloride, camphor (0.2 Gm. [3 grn.]); ether (20 drops); strychn. (0.0005–0.001 Gm. [$1/120$ – $1/60$ grn.]), oratropine, hypoderm; friction, stimulants, oxygen, mucilage of acacia.—INCOMP.: Alcoh., KI, KCN, KMnO_4 ; borax; alkali hydroxides & carbonates; euphorin; lead acetate; monobromated camphor; diuretin; exalgine; phenacetin; quinine sulphate; salol; sodium phosphate; urea; urethane. Liquefies when triturated w. an equal quantity camphor, phenol, menthol, or thymol.—CAUT.: Keep glass stoppered.

Chloral Hydrocyanate

Trichlorlactonitrile.— $\text{CCl}_3\text{CH}(\text{OH})\text{CN} = 174.42$.—Fr. chloral by conc. HCN.—Colorl. cryst.; odor of HCN & chloral.—15% HCN.—SOL.: W., A., E.—MELT.: 61° C.—USES: In solut. inst. of cherry-laurel, or bitter-almond. W., & superior to these, as exact dose possible. because HCN content more uniform, & permanent; 1 part diss. in 160 distil. water affords a solut. equiv. to the bitter-almond water of the P.G. Also used by inject. to kill dogs.—6.46 chloral hydrocyan. = 1 anhydr. HCN.

CHLORAL, PHENOLATED—see Chloral Carbolated

CHLORALAMIDE—see Chloralformamide

Chloralammonia

$\text{CCl}_3\text{CH}(\text{OH})\text{NH}_2 = 164.43$.—Fr. anhydr. chloral in C. solut. by NH_3 gas.—Fine wh. needles.—SOL.: A., E.; alm. insol. W.—MELT.: 62°–64° C.—ACTION: Hypnot.; Analges.—USES: Nerv. insomn., neuralg., etc.—DOSE: 1–2 Gm. (15–30 grn.).

Chloralcaffeine

$\text{C}_8\text{H}_{10}\text{O}_2\text{N}_4 + \text{C}_2\text{H}_3\text{O}_2\text{Cl}_3 + \text{H}_2\text{O} = 377.58$.—Comp'd. of 212 pts caffeine & 165.5 pts chloral hydrate.—Colorl., cryst. powd.—SOL.: Eas. A.; decomp. by W.—ACTION: Hypn.; Sed.; Analg.; Mild Lax.—USES: Nervn., insom., neural., & headache.—INJ., subcut., 0.2–0.8 Gm. (3–13 grn.) p.d.

Chloralformamide

Chloralamide, B.P.; Chloramide (B.P.C.); Formamidated Chloral.— $\text{CCl}_3\text{CH}(\text{OH})\cdot\text{CONH}_2 = 192.44$.—Fr. anhydr. chloral by formamide.—Lustr. colorl., odorl., somewh. bitter cryst.—SOL.: 25–30 W., abt 25 A.; v. sol. in E., 12 G., B.P.; also in acetone & acetic ether; decomp'd by warm solvents.—MELT.: 114°–115° C.; decomp. at higher temp.—ACTION: Hypn.; Analg.—USES: Claimed to prod. sleep without injur. act.; acts more slowly, but said to be safer, than chloral hydrate; insom. of alcoholism, cardiac dis., pulmon. dis., neural., seasickness (w. potass. bromide), & hyst.—DOSE: 0.6–3 Gm. (10–45 grn.).—MAX. D.: 4 Gm. (60 grn.), single; 8 Gm. (120 grn.), p.d.; aver. dose 1 Gm. (15 grn.).—Subcut., in rectal carcinoma, 1–2 cc. (15–30 M) of a 4% solut.—

VETER. MED., *horses & cattle* 40–75 Gm. (10–18 dr.); *sheep, goats, & pigs*, 8–15 Gm. (2–4 dr.); *dogs* 0.75–1.5 Gm. (12–23 grn.).—INCOMP.: Alkalies, AgNO_3 .

Chloralimide—(Not -amide)

Trichlorethylideneimide. — $(\text{CCl}_3\text{CH}:\text{NH})_3 = 439.24$.—Fr. chloral ammonia by heat; or by heat'g chloral hydrate w. ammon. acetate.—Colorl., odorl., tastel. cryst.—SOL.: Eas. A., B., C., E., oils; insol. W.—MELT.: 150° – 155° C.—ACTION: Hypn.; Analg.—USES: Insom., headache, & fever.—DOSE: 1–3 Gm. (15–45 grn.) 2 or 3 t.p.d.—MAX. D.: 4 Gm. (60 grn.) single.

Chloralose Merck

Glucochloral (B.P.C.); Anhydroglucochloral. — $\text{C}_8\text{H}_{11}\text{Cl}_3\text{O}_6 = 309.51$.—Fr. anhydr. chloral by heat'g w. glucose.—Colorl. cryst.; bitter, disag. taste.—SOL.: A., sltly in W.; diffic. C.; 170 W., & freely in hot W., & A., E., glac. acet. acid.—MELT.: 185° C.—ACTION: Hypnotic; Sedative.—USES: Insom., hysteria, neurasthenia, tabes, mania, seasickness, epilep., & chorea. Free fr. disag. cardiac after-effects & cumulative tendency of chloral. Acts princip. by reduc. excitability of gray matter of brain. Some observers have reported transitory by-effects as trembling, spasms, epileptoid or cataleptoid attacks, dizziness, hallucination, & delirium, while others report good results.—DOSE: 0.2–0.6 Gm. (3–10 grn.); the latter dose should not be exceeded.—NOTE: Although the chloralose melting at 185° C. is ordinarily designated in literature as the alpha-chloralose, while that melting at 227° – 230° C. is designated as the beta- or para-chloralose, Beilstein (I, 1049, & Ergänz.-Bd. I, 574) reverses the designation, & describes the lower-melting comp'd as beta-chloralose, & the higher-melting one as alpha- or para-chloralose.

β -Chloralose

Parachloralose. — $\text{C}_8\text{H}_{11}\text{Cl}_3\text{O}_6 = 309.51$. — By-product in manuf. of chloralose.—Wh. cryst.—SOL.: A.; v. sltly W.—MELT.: 227° – 230° C.—USES: Has no narcotic properties. First considered hypnotic, but U. Mosso says it is emetic.—NOTE: See note to α -chloralose above.

CHLORALPHENOL—see Chloral Carbolated

Chloralurethane

Uralium; Ural; Uraline. — $\text{CCl}_3\text{CH}(\text{OH})(\text{NH})\text{COOC}_2\text{H}_5 = 236.48$.—Fr. chloral & urethane by conc. HCl.—Wh. cryst. powd.—SOL.: Eas. A.; E.; insol. W.—MELT.: 103° C. w. part. decomp.—ACTION: Hypn.—USES: Produce sleep in epileptic dementia, hypochondria, & mitral insufficiency.—DOSE: 0.6–3 Gm. (10–45 grn.).

CHLORAMIDE—see Chloralformamide

Chloramine—U.S.P. X

Chloramine-T; Sodium Paratoluenesulphonchloramide; Chlorazene; Clonazene. — $\text{CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{NNaCl} + 3\text{H}_2\text{O} = 281.67$.—Wh., or faintly yellow cryst. powd.; slt Cl odor; cont's 11.5%–13% active Cl; decomp. in moist air.—SOL.: Abt 7 W. at 25° C., 3 boil. W.; insol. B., C., E.; decomp'd by A.—MELT.: 160° – 185° C.

w. decomp.—ACTION: Surgical Antisep.—USES: *Extern.*, in 0.1%–4% solut. as applic. to surgical & o. wounds, & applied like solut. chlorinated soda; also employed f. irrig. of urethra, bladder & uterus, & as mouth wash; *intern.*, as intest. antisept. (it is stated that tho. pract. nontoxic, it should not be given by mouth as it is decomp'd by the gastric juice).—DOSE: 0.05 Gm. ($\frac{3}{4}$ grn.) w. 0.3 Gm. (5 grn.) charcoal 3 t.p.d. as intest. antisept.; 0.2–0.36 Gm. (3–6 grn.) in gastric disturb.; 2 doses of 0.12 Gm. (2 grn.) ea. in bacillary dysent.

Chloramine-B

Sodium Benzenesulphochloramine. — $\text{C}_6\text{H}_5\text{SO}_2\text{NNaCl} + 2\text{H}_2\text{O} = 249.63$.—Wh., cryst. powd.; slt Cl odor.—SOL.: W.—MELT.: 170° – 180° C.—ACTION & USES: As of chloramine (*q.v.*).

CHLORAMINE-T—see Chloramine

Chloranil

Tetrachloroquinone. — $\text{C}_6\text{Cl}_4\text{O}_2 = 245.87$.—Fr. aniline or phenol by KClO_3 w. HCl.—Yellow leaflets.—SOL.: Insol. W., sltly hot, A.; more eas. B., E.—MELT.: 290° C. (in sealed tube).—USES: Techn., as oxidizer in manuf. coal-tar dyes; also as test f. amyl alcohol (Tsalapatani).

CHLORAZENE—see Chloramine

CHLORBENZOL—see Benzal Chloride

CHLORBROMOPROPANE—see Trimethylene Chlorobromide

Chlorbutanol

Acetone-Chloroform; Chloretone; Chlorbutol (B. P. C.); Dimethylcarbinolchloroform; Trichlor-Tertiary-Butylalcohol; Methaform. — $(\text{CH}_3)_2\text{C}(\text{OH})\text{CCl}_3 = 177.46$ (also occurs w. $\frac{1}{2}$ H_2O).—Fr. acetone, & CHCl_3 in presence of KOH.—Wh., cryst.; camphor odor & taste.—SOL.: Freely in A., C., E., acetone, benzin, glac. acetic acid; 125 W.; G.; oils.—MELT.: Abt 97° C. when anhydrous; abt 80° – 81° C. when cont'g $\frac{1}{2}$ mol. W. of cryst.—BOIL.: 167° C. (anhydrous).—ACTION: Hypnot.; Sed.; Antisep.; Antispasm.; Local Anesth.—USES: *Intern.*, in gastric pains fr. gastritis, ulcer, cancer, gastrodynia; tetanus, vomit. of chlorosis, seasickness, car sickness, & chorea; insomnia of aged & cardiac dis.; vomit of pregnancy; infantile epilepsy.—*Extern.*, painful wounds, burns, &c.; also as inhalant in rhinitis, bronchitis, "sore throat," & catarrh.—*Subcut.*, in sat. aqu. solut. as a local anesth.—DOSE: Insomnia, 0.3–1.3 Gm. (5–20 grn.); to reduce nausea in chloroform or ether anesth., 0.6–1 Gm. (10–15 grn.) $\frac{1}{2}$ hr. bef. anesthetization; gastric carcin. etc., up to 2 Gm. (30 grn.); seasickness, 0.6 Gm. (10 grn.), later on 0.3 Gm. (5 grn.); vomit. of pregn., 0.2 Gm. (3 grn.); in infantile epilepsy, 0.1–0.35 ($\frac{1}{2}$ – $5\frac{1}{2}$ grn.); in tetanus, 1.2–1.4 Gm. (18–24 grn.) in oily solut. rectally; in hemorrhoids, 0.3 Gm. (5 grn.) in suppository; in chorea, 0.3 Gm. (5 grn.) 3 t.p.d. f. children 12 yrs old.—APPL.: In sat. aqu. solut. or 1%–20% paraffin oil solut., or 10% oint., or as 1%–5% dusting-powd. in painful wounds, burns, etc.; also for preserv'g hypodermic soluts.—VETER. MED., as hypnotic f. *dogs*, 0.5–1 Gm. (8–15 grn.).

CHLORBUTOL—see Chlorbutanol

CHLORCALCIUM CARBAMIDE—see Afenil

CHLORCOSANE—see Paraffin, Chlorinated

CHLORCRESOL—see Chlormetacresol

CHLORDIHYDROXYPROPANE—see α -Monochlorhydrin

Chlordinitrobenzene

$C_6H_3(NO_2)_2Cl$ [1:3:4] = 202.53.—Slightly yellow cryst.—SOL.: Diffic. cold, eas. hot. A., E., B., CS_2 ; insol. W.—MELT.: $50^\circ C$.—BOIL.: $315^\circ C$. w. slt decomp.

CHLORETONE—see Chlorbutanol

CHLORFORMYL CHLORIDE SOLUTION—see Phosgene Solution

CHLORHYDRIN, ASYMMETRIC—see α -Monochlorhydrin

CHLORHYDRIN, SULPHURIC—see Acid Chlorsulphonic

"CHLORIDE OF LIME"—see Lime Chlorinated

CHLORIDENE—see Ethylidene Chloride

CHLORIN—see Dinitroresorcinol, Paste

Chlorine

Cl = 35.46; disc. in 1774 by Scheele.—Greenish-yellow gas at ord. temp.; suffocating odor; dangerous to inhale. Under pressure, forms a yellowish-green liq., in which form mkt'd in steel cylinders; 1 kilo liq. chlorine affords 300 liters gas.—SP. GR.: Gas, 2.49 (air = 1); liq., 1.44 at $10^\circ C$.—BOIL.: Liq., $-33.6^\circ C$. at 760 mm.—USES: Largely employed in bleaching all kinds of fabrics, purifying water, disinfecting; military gas; detinning; manuf. chlorinated lime, & a large number of other chemicals. Has also been advocated f. medic. use in great dilution f. treating colds, etc.

CHLORINE BROMIDE—see Bromine Chloride

CHLORINE WATER—see Solution Chlorine Compound

Chlormetacresol

Chloroxymethylbenzene.— $C_6H_3.CH_3.OH.Cl$ [1:3:6] = 142.55.—Fr. *m*-cresol & SO_2Cl_2 .—Wh. cryst. powd.; cresol odor.—SOL.: Eas. A., B., acetone, C., E., benzoin; insol. W.—MELT.: $53^\circ C$.—BOIL.: Abt $236^\circ C$.—ACTION: Antisep.; Disinf.—USES: 1% solut. in acetone-alcohol, or 0.5% solut. in 70% A., f. disinf. hands or operative field; also f. disinf. bandages, instruments, etc.—Techn., manuf. oxymonoazo dyes.

p-Chlormetacresol

$CH_3.C_6H_3Cl[4].OH$ = 142.55.—Fr. *m*-cresol by Cl.—Colorl., cryst. powd.; slt odor.—SOL.: Eas. A.; abt 170 W.—MELT.: Abt $63^\circ C$.—BOIL.: Abt $235^\circ C$.—ACTION: Antisep.—USES: Preserv. glue, pastes, inks, etc.; manuf. dyes.

CHLORMETAXYLENE (or, -OL)—see *m*-Chlorxylene

CHLORMETHANE—see Methyl Chloride

CHLORMETHYLPROPANE—see *iso*-Butyl Chloride

α -Chlornaphthalene

Alphamonochlornaphthalene.— $C_{10}H_7Cl$ = 162.57.—Fr. boil'g naphthalene by Cl gas.—Yellow to brown liq.—SOL.: A., B., CS_2 .—BOIL.: $263^\circ C$.—SP. GR.: 1.203 at $15^\circ C$

β -Chlornaphthalene

Betamonochlornaphthalene.— $C_{10}H_7Cl$ = 162.57.—Fr. β -naphthol by PCl_5 .—Wh., lustr. scales.—MELT.: $56^\circ C$.—BOIL.: 264° – $266^\circ C$.—USES: Manuf. dyes.

m-Chlornitrobenzene

Metachloronitrobenzene (or, -zol).— $C_6H_4Cl(NO_2)$ [1:3] = 157.53.—Fr. nitrobenzene, Cl, & $FeCl_3$ —Yellowish cryst.—SOL.: B., C., E., hot A.—MELT.: $44^\circ C$.—BOIL.: $236^\circ C$.—USES: Organ. synthesis.

α -Chlornitrobenzene

Orthochloronitrobenzene (or, -zol).— $C_6H_4Cl(NO_2)$ [1:2] = 157.53.—Fr. chlorbenzene & HNO_3 .—Yellow liq.—SOL.: A., B.—SP. GR.: 1.37 at $15^\circ C$.—BOIL.: $243^\circ C$.—USES: Organ. synthesis.

p-Chlornitrobenzene

Parachloronitrobenzene (or, -zol).— $C_6H_4Cl(NO_2)$ [1:4] = 157.53.—Fr. chlorbenzene & fum. HNO_3 .—Yellowish cryst.—SOL.: A., E.—MELT.: $83^\circ C$.—BOIL.: $242^\circ C$.—USES: Organ. synth.

CHLOROACETYL CHLORIDE—see Chloracetyl Chloride

CHLOROBENZOL—see Benzal Chloride

CHLOROCHROMIC ANHYDRIDE—see Chromium Oxychloride

Chlorodyne—B.P.C.

A mixt. cont'g 6% chloroform, 0.5% morphine hydrochloride, 3% Tr. cannabis indica, 1.5% Tr. capsicum, 12% liq. ext. licorice, 12% mucil. acacia, 25% treacle, 22% glycerin, 1% spir. peppermint, & alcohol.—ACTION: Anodyne; Sedat.; Antispasm.—USES: Colic, diarrh., flatul., coughs, &c.—DOSE: 1–2 cc. (15–30 M).

Chloroform Merck—Reagent

$CHCl_3$ = 119.39.—Clear, colorl., volat. liq.—SOL.: Abt 300 W.; misc. A., E.—SP. GR.: 1.485–1.490 at $15^\circ C$.—BOIL.: 60° – $62^\circ C$.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.001%
Acetone.....	0.000%
Acid (as HCl).....	0.000%
Free Chlorine (Cl).....	0.000%
Phosgene.....	0.000%
Aldehyde.....	None
Substcs. Darkened by H_2SO_4 ..	0.000%

USES: Solvent f. alkaloids, fats, oils, waxes, resins, etc.; identifying primary amines (isonitride reaction) & naphthol; reagent f. I, & also f. blood (Kossa; Inouye).

Chloroform Merck—C.P.

Trichlormethane; improperly "Formyl Trichloride."— $CHCl_3$ = 119.39.—Fr. acetone or alcohol & chlorinated lime.—H'ly refract.,

clear, colorl., sweet-tast'g, heavy, vol. liq.; charact. odor.—MISC.: A., B., E., petroleum E., & oils; abt 300 W.—BOIL.: 60°–62° C.—SP. GR.: 1.485–1.490 at 15° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Acid (as HCl).....	0.000%
Free Chlorine (Cl).....	0.000%
Aldehyde.....	None
Substcs. Darkened by H ₂ SO ₄ ..	0.000%

USES: As of the Reagent, above.

do. —For Anesthesia—U.S.P. X—Abt. $\frac{3}{4}$ % Alcohol

DESCRIPT., SOL., & BOIL.: As preceding.—SP. GR.: 1.474–1.478 at 25° C.—Cont's $\frac{1}{2}$ %–1% A. by wt.—ACTION: Anesth.; Teniaf.; Antisep.; Analg.—USES: *Intern.*, colic, gastral., obstin. vomiting, seasickness, cardialgia, asthma, spasm, cough, atonic quinsy, flatulence, diarrh., lead colic, hyst., scarlet fever, neural., cancer, hicc., tic douloureux, tape worm, &c.—*Inhal.*, partic. adapted for anesth. in surg. operat. of all kinds, obstetrical cases, convulsions, epilepsy, tetanus, pneum., asthma, sunstroke, strychnine poison'g & whoop-cough.—*Extern.*, pure, or 20%–50% linim. for rheum., neural., colic, &c.—*Hypoderm.*, in hydrocele.—DOSE: 0.06–1 cc. (1–15 M) in solut.; aver. dose 0.3 cc. (5 M).—MAX. D.: 2 cc. (30 M).—*Subcut.*, in tic douloureux 0.5–1 cc. (8–15 M).—By *inhalation*, 6–12 cc. (1½–3 fl. dr.) as anesth.; also in anesthetic mixtures (e.g. Bilroth's mixt., 10 C., 3 A., 3 E.).—VETER. MED., as anesthetic, *horses* 50–100 cc. (12–25 fl. dr.); to relieve colic, etc., *horses & cattle* 25–50 cc. (6–12 fl. dr.); *sheep, goats & pigs*, 5–10 cc. (75–150 M); *dogs*, 0.5–4 cc. (8–60 M); *cats*, 0.25–1 cc. (4–15 M).—ANTID.: Emetics, stomach siphon, friction, cold douche, fresh air, strychnine hypoderm. (0.0005–0.001 Gm. [$\frac{1}{120}$ – $\frac{1}{80}$ grn.]), rubefac., artif'l respir., &c.—CAUT.: Keep in dark amber.

N.B.—Occasionally practitioners fail to recollect, until after the disagreeable occurrence, that chloroform rapidly decomposes when its vapor comes into contact with an exposed gas-light, evolving peculiar chlorine vapors (phosgene) which are extremely irritating to all present, and which may be even dangerous to the patient. Chloroform, therefore, should never be administered by gas-light unless the latter be well protected by a closed glass case, and abundant provision made for the rapid escape from the room of all decomposition products.

do. —B.P. 1914

Cont's 2% absol. A.—BOIL.: Not below 60° C.—SP. GR. 1.483–1.487 at 15.5° C.

do. Merck—For Technical Use. Not Suitable f. Use in Anesthesia

USES: Electrotechn., rubber industry, photo., & partic. as a solvent f. fats, oils, rubber, gutta percha, resins, etc.; cleansing agent.

Chlorogenine

Alstonine.—C₂₁H₂₀N₂O₄ + 3½H₂O = 427.34.—Alkaloid fr. bark *Alstonia constricta*, F.

Mueller, (Australian Fever Bark).—Brown powd.—SOL.: A., B., C., dil. acids; sltly in W.; diffic. E.—MELT.: 195° C. when anhydrous.—ACTION: Antipyr.; Antiper.; Antisep.; Stim.—USES: Intermittent fever, typhoid, milk fever, &c.; said to possess united propert. of quinine & strychnine.

CHLOROIODOBENZOIC-ACID GLYCERIN ESTER — see Benzoiodydrin

CHLOROMETHANE—see Methyl Chloride

Chlorophyll

Leaf Green; Chromule.—Color'g matter in substance fr. plant lvs; pure but w. trace alkali carbonate to prevent decomp. Free fr. copper.—Green masses; extr.-like consist.—SOL.: A., E., CS₂, & volat. oils w. trace of acetic acid; sol. in dil. A.—USES: *Techn.*, color. alcoh. liquids, fats, oils, soap, &c., & partic. mixtures, syrups, liqueurs, &c.

do. Merck—Alcoholic

Intens. dark green carotin-free liq.—SOL.: A., E.—USES: 1:300–400 to color alcoh. liq. cont'g *not less* than 85% alcohol. Color stable in light; no fluoresc.; also in alcoh. solut. as contrast stain, & f. microsc. detect'n of fat.

do. Merck—Aqueous

Intens., dark green, non-fluoresc., nonpoisonous, carotin-free liq.; alm. perman't in light.—MISC.: W., all prop.—USES: *Intern.*, in aqu. solut. f. diagnosing pyloric stenosis.—*Techn.*, 1–2:1000 to color liqueurs, confectionery, preserves, &c., cont'g *not more* than 85% alcohol.

do. Merck—Technical

SOL.: A., fats, oils, E., C., &c.; perm't, beautiful stable green without fluoresc.; not acted on by light.—USES: 1:500 to color oils, fats, soaps, oint., &c., a natural green; not suitable for aqueous or alcoh. solut's.

CHLOROPICRINE—see Chlorpicrine

Chloroxyl

Phenylcinchoninic-acid Hydrochloride.—C₆H₅.C₉H₅N.COOH.HCl = 285.64.—Yellow, cryst. powd.; astring., sltly bitter taste.—SOL.: Slty A.; insol. W., C., E.—MELT.: Abt 223° C.—ACTION, USES, & DOSE: As of cinchophen.

CHLOROXYMETHYLBENZENE—see Chlormetacresol

CHLORPHENOL—see *m*-, *o*-, & *p*-. Monochlorphenol

Chlorpicrine

Trichloronitromethane.—Nitrochloroform.—CCl₃NO₂ = 164.40.—Fr. picric acid by dist. w. chlorinated lime.—Colorl. liq.; intense odor; causes flow of tears & a pecul. form of frontal headache.—SOL.: A., E.; insol. W.—SP. GR.: 1.666–1.668 at 15° C.—BOIL.: 112° C.—USES: Disinf. cereals & grains; parasiticide & insecticide; military gas.

CHLOROPROPYLENE OXIDE—see Epichlorhydrin

CHLOROPROPYLENEGLYCOL—see α -Monochlorhydrin

CHLORSULPHONIC ANHYDRIDE—see Pyrosulphuryl Chloride

Chlor-Tetragnost

Tetrachlorophenolphthalein Sodium Merck. — $C_{20}H_8Cl_4O_4Na_2 = 500.00$. — Wh., cryst. powd. — SOL.: Eas. W. — USES: Test'g hepatic function. 5 cc. (75 M) of a sterile, 7% aqu. solut. are inj. intraven., & after 1 hr the blood (also the urine) is examined f. the dye. Moderately strong to strong reactions point to decided hepatic injury.

CHLORTOLUENE—see Benzyl Chloride

m-Chlortoluene

Metachlortoluene (or, -ol). — $C_6H_4Cl(CH_3)$ [1:3] = 126.55. — Colorl. liq. — SOL.: Eas. A., B., C., E. — SP. GR.: 1.077–1.079 at 15° C. — BOIL.: 162° C.

o-Chlortoluene

Orthochlortoluene (or, -ol). — $C_6H_4Cl(CH_3)$ [1:2] = 126.55. — Colorl. liq. — SOL.: Eas. A., B., C., E. — SP. GR.: 1.085–1.088 at 15° C. — BOIL.: 159° C. — USES: Manuf. intermediates, o-chlorbenzaldehyde & o-chlorbenzoic acid.

p-Chlortoluene

Parachlortoluene (or, -ol). — $C_6H_4ClCH_3$ [1:4] = 126.55. — Colorl. liq. — SOL.: A., B., C., E. — SP. GR.: 1.074–1.075 at 15° C. — MELT.: 7.4° C. — BOIL.: 162° C. — USES: Manuf. intermediates; p-chlorbenzaldehyde, p-chlorbenzoic acid.

m-Chlorxylene

Chlormetaxylene (or, -ol). — $C_6H_3(CH_3)_2Cl$ [1:3:4] = 140.57. — Liq.; does not solidify at -20° C. — SP. GR.: 1.06 at 15° C. — BOIL.: Abt 186° C.

CHLORYLENE—see Trichlorethylene

CHOKE CHERRY—see Wild Cherry

CHOLALIC ACID ANHYDRIDE—see Dyslysin

CHOLEPYRRHIN—see Bilirubin

Cholesterin Merck

$C_{27}H_{46}O = 386.51$. — Fr. gall, brain, & vegetable fats. — Unctuous, wh., pearly scales. — SOL.: B., C., E., hot A., oils & fats; sltly W. — MELT.: 146°–148° C. — ACTION: Antisep.; Antitoxic; Antihemolytic. — USES: Intern., pernicious anemia, hemolytic jaundice, blackwater fever, enteritis due to intest. putrefaction, hemoglobinuria, purpura rheumatica, chlorosis, tetanus, pulm. tuberc., & infantile lymphatism w. local tuberc. Also as substitute for egg lecithin, & as antidote to saponins; also used techn.; can absorb 200% water. — DOSE: 0.2–0.3 Gm. (3–5 grn.); 1–3 Gm. (15–45 grn.) p.d. In pernicious anemia, neurasthenia, tubercul. etc. *intraven.*, 0.5 Gm. (7½ grn.) p.d., dissolved in olive oil or as 10% emulsion; in tetanus, *subcut.* 1.5 Gm. (23 grn.) p.d.

Cholesteryl Oleate

$C_{28}H_{43}O(C_{18}H_{33}O) = 636.83$. — Occurs in the blood serum. — Sltly yellowish cryst. — SOL.: A., E.; insol. W. — MELT.: 41°–42° C. *

Choleval

Colloidal Silver-Sodium Cholate Merck. — Cont's 10% Ag w. sod. cholate as a protective colloid. — Dark-brown, alm. black, lustr., odorl. powd. — SOL.: v. eas. W.; diffic. in A. — ACTION: Antisep.; Antigonorrh.; Bactericide. The sod. cholate dissolves & breaks down the pus cells, setting free their bacterial contents which are then exposed to the destructive action of the silver. Solutions are not astringent, & seldom have an irritant action. — USES.: Acute, subacute, & chron. gonorrh., but only in uncomplicated cases of anterior urethritis, employing injections, as early as possible, of 0.25% strength to begin with, 3–4 t.p.d., using 10 cc. (150 M) f. ea. inj., & grad. increasing the strength up to 1.5%, then grad. decreasing. As an irrigation, 1:1000–1:500 solut. — Also *intravenously* in acute & chron. cholangitis, cholecystitis, & all inflammatory complications in diseases of the bile ducts, residual typhoid infection, & hepatic abscess, employing an inj., of 0.1 Gm. (1½ grn.) choleval in 10 cc. (150 M) sterilized dist. water, daily if necess., & in severe cases employing a 2% solut. (0.2 Gm. choleval in 10 cc. water). The solut. is easily made by sprinkling the choleval on the surface of the water contained in a sterile porcelain dish.

do. Merck—Tablets, 0.25 Gm. Each

do. — Ampuls f. Injection

Supplied in ampuls cont'g 10 cc. of a 1% or 2% solut. respectively.

Choline

Sinkaline; Bileurine; Amanitine; Trimethyl-ethylenehydrateammoniumhydroxide; Oxyethyltrimethylammonium Hydroxide. — $(CH_3)_3N(OH).CH_2.CH_2.OH = 121.15$. — Viscid liq. — SOL.: W., A. — ACTION: Membrane Solvent. — USES: Carcinoma, sarcoma, & diphtheria. — DOSE: Up to 2 Gm. (30 grn.) p.d., subcut. or intramusc., in 0.5%–1% solut. — Also by inj. 2%–5% solut. directly into tumor, or locally in diphtheria.

Choline Borate

$(OH)_2BO.N:(CH_3)_3CH_2.CH_2.OH = 165.06$. — Colorl., v. hygros. cryst., powd. — USES: Malignant tumors, tuberc., & in cancer, instead of choline, because much more stable. — DOSE: 0.01 Gm. (⅓ grn.) grad. incr. to 0.25 Gm. (4 grn.) in 1% solut. in physiol. salt solut. ev. other day; *intraven.* in tubercul., 25–40 cc. (6–10 fl. dr.) of 2% solut. 2–4 t. p. week; for injec. directly into tumors or gluteal muscles 4–5 cc. (60–75 M) undiluted; doses higher than 0.2 Gm. (3 grn.) are said to develop disagreeable by-effects.

Choline Chloride

$(CH_3)_3N.CH_2.CH_2.OH.Cl = 139.61$. — Deliq. cryst. — SOL.: Eas. W., A. — USES: Carcinoma & sarcoma, tuberculosis; gastric paralysis; paroxysmal tachycardia. — DOSES: In gastric paral., 0.01–0.04 Gm. (⅓–⅔ grn.) *intraven.*; in paroxysmal tachycardia 0.5 cc. (8 M) of a 5% solut. *intraven.*; also by intra- & paratumoral inj. in carcinoma, & as *intraven.* inj. in tuber-

culosis.—MAX. D.: 25–40 cc. (6–10 fl. dr.) of a 2% solut. p.d., subcut. or intraven.

Chondrin

Gelatin-like substce fr. cartilage.—Yellow, glue-like, horny masses.—SOL.: Hot W.

Chondrus—N.F. V; B.P.C.

Carragheen; Irish Moss; Pig-wrack; Pearl Moss; Killeen; Salt Rock Moss.—Dried bleached plant of *Chondrus crispus* (L.), Stackhouse, or of *Gigartina mammosa* (Goodenough & Woodward), J. Aghardh, *Gigartina* sp.—HABIT.: Irish coast; New England; Atlantic Ocean.—Yellowish or whitish, horny, transluc. segments, 2–5 in. long, forked, wedge-shaped to linear; seaweed-like odor; mucilaginous, saline taste; when boiled w. 30 W. for 10 minutes, solut. gelatinizes when cold.—CONSTIT.: Pectin (up to 80%); also termed carrageenin; abt 7% proteids; a little iodine.—ACTION: Nutr.; Demulc.—USES: *Intern.*, chron. pector. affect. dysent., diar., &c.—*Extern.*, in cataplasms.—*Techn.*, emulsifier for oils.—*Micros.*, as nutrient media f. ameba.—Also f. making jellies, &c.—DOSE: 4–8 Gm. (1–2 dr.) in form of decoct. or jelly.

CHOP NUT—see Physostigma

CHRISTMAS FLOWER }
CHRISTMAS ROSE } see Hellebore, Black

CHROMACICHLORIDE—see Chromium Oxychloride

CHROME ALUM—see Chromium & Ammonium Sulphate; Chromium & Potassium Sulphate

CHROME GREEN—see Chromium Oxide, Anhydrous

CHROME RED—see Lead Chromate, Red

CHROME YELLOW—see Lead Chromate

Chromite—Mineral

OCCUR.: Beresowsk (Ural); Norway.—COMPOS.: $[(\text{CrFe})_2\text{O}_3]_2 \text{Fe, Cr}$.—CRYST. SYST.: Reg.—LUSTER: Vit. splendent to met. or submet.—COLOR: Black.—STREAK: Dark - brown.—FRACT.: Uneven.—HARDN.: 5.5.—SP. GR.: 4.32–4.57.—USES: Important chromium ore; manuf. specially colored glass, chrome steel, ferrochromium, refractory furnace linings.

Chromium Merck—Cryst.

Cr = 52.00; disc. in 1797 by Vauquelin.—Shin., steel-gray, cryst., or hard, lustrous steel-gray pieces; hard as corundum & less fusible than platinum (above 2000° C.).—SOL.: Dil. HCl & H₂SO₄; insol. HNO₃.—SP. GR.: 6.7–6.8 at 15° C.; 6.92 at 20° C. (Moissan).—USES: Chromium & its comp'ds find important use in manuf. chrome-steel (for greatly increas'g resistance & durability of metals), acid-proof apparatus, alloys w. Cu, Ni, Al, Si, Co, & Wo; also manuf. glass, porcelain, & pigments; in tanning leather & for mordants.

Chromium Acetate—Chromic—Normal

$\text{Cr}(\text{C}_2\text{H}_3\text{O}_2)_3 + \text{H}_2\text{O} = 247.12$.—Grayish-green powd.—SOL.: W.—USES: As chrome mordant & in dyeing; tanning.

do. —Chromous—Normal

$\text{Cr}(\text{C}_2\text{H}_3\text{O}_2)_2 + \text{H}_2\text{O} = 188.08$.—Brownish-violet, v. eas. oxidizable, pasty mass.—SOL.: HCl; v. sltly W.—USES: In gas analysis as absorber of oxygen.

CHROMIUM ANHYDRIDE—see Chromium Trioxide

Chromium Bromide—Chromic

$\text{CrBr}_3 + 6\text{H}_2\text{O} = 399.86$.—v. deliques., green cryst.—SOL.: v. eas. W., A.

do. —Chromous

$\text{CrBr}_2 = 211.84$.—Wh. cryst., becoming yellow when heated; stable in dry, but oxidizes in moist, air.—SOL.: W. w. blue color.

Chromium Carbonate Merck—Chromous

$\text{CrCO}_3 = 112.01$.—Amorph., grayish-blue mass.—SOL.: Mineral acids; sltly W. cont'g CO₂; insol. A.

Chromium Chloride Merck—C.P.

$\text{CrCl}_3 + 10\text{H}_2\text{O} = 338.54$.—Green cryst. powd.—SOL.: v. eas. W., A.

MAXIMUM OF IMPURITIES

Sulphate (SO ₃)	0.045%
Alkalies & Earths	0.300%
Aluminum (Al)	0.030%
Iron (Fe)	0.015%

USES: Manuf. Cr salts; as catalyzer.—The technical grade is used in dyeing & printing fabrics, & in electrolytic baths.

do. —Chromic—Solution

Green liq. cont. abt 48% CrCl₃.—MISC.: W.—SP. GR.: 1.44 at 15° C. = 45° Bé.—USES: Mordant for wool.

do. Merck—Chromic—Sublimed

Chromium "Sesquichloride."—CrCl₃ = 158.38.—Viol., lustrous leaflets.—Insol. W. & acids if first heated to redness.—USES: As catalyzer.

Chromium Fluoride—Chromic

$\text{CrF}_3 = 109.00$ + variable quant. aq.—Green, cryst. powd.—SOL.: Slty cold, more so in hot, W.—USES: Print'g & dye'g woolens, & dyeing & hardening marble.

CHROMIUM HYDRATE—see Chromium Hydroxide

Chromium Hydroxide Merck

Chromic Hydrate; Emerald Green.—Cr(OH)₃ = 103.02 + variab. quant. H₂O.—Grayish blue or grayish green powd.—SOL.: Acids; insol. W.—USES: *Medic.*, gastric & intest. affect., neuroses, & diarrh.—*Techn.*, as pigment in painting; also as mordant (dissolved in caustic alkalies).—DOSE: 0.5–2 Gm. (8–30 grn.).

Chromium Nitrate

$\text{Cr}(\text{NO}_3)_3 + 9\text{H}_2\text{O} = 400.17$.—Fr. Cr(OH)₃ & HNO₃.—Purple cryst.—SOL.: W., A.—MELT.: 37° C.

do. Merck—Liquid

$\text{Cr}(\text{NO}_3)_3$ + aq.—Bluish-green liq.—MISC. W.

Chromium Oxalate—Chromous

$\text{Cr}(\text{C}_2\text{O}_4) + \text{H}_2\text{O} = 158.03$.—Yellow, cryst. powd.—SOL.: Hot W.

Chromium Oxide Merck—Anhydrous

Chromium Sesquioxide; Chrome Green; Oil Green; Green Cinnabar.— $\text{Cr}_2\text{O}_3 = 152.00$.—Light to dark green powd.—SOL.: Sltly acids; insol. W.—USES: Pigment, partic. in painting on glass & porcelain; printing fabrics & banknotes; polishing steel; abradant, &c.

Chromium Oxychloride

Chlorochromic Anhydride; Chromyl Chloride; Chromacichloride.— $\text{CrO}_2\text{Cl}_2 = 154.92$.—Dark-red, mobile liq.; fum. in air.—SP. GR.: 1.911.—BOIL.: 118°C .—CAUT.: Keep in sealed tubes.

Chromium Phosphate—Chromic

Arnaudon's, or Plessy's, Green.—Bluish-green powd.; variable composition.—Insol. W.—USES: Valuable pigment.

CHROMIUM "SESQUICHLORIDE"—see Chromium Chloride

CHROMIUM SESQUIOXIDE—see Chromium Oxide

Chromium Sulphate Merck—C.P.

$\text{Cr}_2(\text{SO}_4)_3 \cdot 15\text{H}_2\text{O} = 662.42$.—Dark green scales; decomp. at high temp.—SOL.: W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Alkalies.....	0.50%
Aluminum (Al).....	0.020%
Ammonium Compds (NH_3)...	Trace
Iron (Fe).....	0.010%

do. Merck—Scales, Pearls, or Powd.

Variable compos'n; approx. $\text{Cr}_2(\text{SO}_4)_3 \cdot \text{Cr}_2(\text{SO}_4)_2(\text{OH})_2 + \text{aq}$.—Dark-green gran. (pearls), or scales; also powd.—SOL.: W.—USES: *Intern.*, neurasthenia, prostatic hypertrophy, cirrhosis of female breast, menopause, Basedow's dis., functional impotency in men, chronic alcoholism, nervous vomit., vomit. of pregnancy, migraine, & partic. in locomotor ataxia; fibroid degeneration, neurotic tendency, chron. interstitial nephritis, & uterine fibroids.—DOSE: 0.25–0.5 Gm. (4–8 grn.) 3 t.p.d. after meals. Even much larger doses may be given, it has been stated, without untoward effects; best given w. plenty of W. to avoid slight gastric irrit.

do. —Techn.

Wool Mordant.—USES: Manuf. green varnishes & paints, as addit. to green inks, as mordant for wool; glaze f. porcelain; tanning.

Chromium Trioxide Merck—Reagent—Free fr. Sulphates

Acid Chromic; Chromium Anhydride.— $\text{CrO}_3 = 100.00$.—Dark brownish-red or purplish-red, deliquescent, needles or prismatic cryst., or granules.—SOL.: Abt 1 W.; decomp. by A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.000%
Nitrate (N_2O_5).....	0.100%
Sulphate (SO_3).....	0.006%
Alkali Salts.....	0.300%

USES: Oxidizer; determ'g C. P. & sucrose; hardening agent in microsc.; reagent f. atropine (Brunner), solanine (Clarus), erbium & didymium (Couquet), salicin (Creuse), melanin (Eiselt), acetanilid (Fulmer; Ritsert), guaiacol (Guérin), silk (Höhnel; Jacquemin), nicotine (Kletzensky), olive oil (Lailier), oleic acid (Lifschütz), albumin (Mandel; Rosenbach), sparteine (Marqué), cocaine (Mezger; Schäffer), Br (Pozzi-Escot), tartaric acid (Salzer), H_2O_2 (Schönbein), lactic acid (Thomas), & ptomaines (Wefers-Bettink); also f. phenacetin & thalline.

Chromium Trioxide Merck—C.P.

Acid Chromic; Chromium Anhydride.— $\text{CrO}_3 = 100.00$.—Dark brownish-red or purplish-red deliquescent, needles or prismatic cryst., or granules.—SOL.: Abt 1 W.; decomp. by A.

MAXIMUM OF IMPURITIES

Sulphate (SO_3).....	0.030%
Alkali Salts.....	0.500%

USES: As of the Reagent, above.—CAUT.: Keep fr. contact w. organic matter (may cause fire or explosion).

do. Merck—U.S.P. X—Gran.

Purplish-red, deliquescent, cryst. or granules.—SOL.: 0.6 W. at 25°C . & 0.5 boil. W.—Decomposes organic solvents (e.g. alcohol) violently.—MELT.: Abt 190°C ; decomp. above 250°C .—ACTION: Caustic; Astring.—USES: *Extern.*, syphilitic sores, hyperplasias, or ulcers; condylomata; exuberant granulations; hemorrhage; perspir'g feet; leucorrhea, &c.—APPL.: *Caust.*, 20% solut. upwards, or pure, melted on silver probe; *astring.* (sweat'g feet), 5% solut.—VETER. MED., *extern.*, in 10%–33% solut. in mouth- & foot-dis.; also as caustic f. neoplasms, & aptuous stomatitis; 1% solut. in snake bite.—ANTID.: Emetics, then milk; white of egg; calc. saccharate, 0.5–1 Gm. (8–15 grn.) in sugar water ev. hr; powd. iron w. syrup; magnesia, 10 Gm. (150 grn.) & 150 cc. (5 fl. oz.) water, in tablesp. doses; ice; chalk.—In burns fr. CrO_3 apply dil. solut. NaHCO_3 , followed by lead water & 10% lead-acetate oint.—INCOMP.: A., E., G., spirit nitrous ether, As_2O_3 , & n'ly every organ. substce; bromides, chlorides, iodides, hypophosphites, oxalates, sulphides, sulphites, & tartrates.—CAUT.: Poisonous! Dangerous accidents may occur by contact w. organic substances. Keep dry.

do. Merck—99½%, Gran.

DESCRIPT., &c.: As of preced'g.—USES: Electric batteries; photog.; purif. oils & acetylene; oxidizer & catalyzer in manuf. dyes, intermediates, etc.; manuf. aniline green; dyeing; tanning; etching copper; chromium plating; test f. silver plating; bleaching; harden. microscopical prep's.

do. Merck—Abt 85%**Chromium & Ammonium Sulphate Merck—Cryst. or Powd.**

Chrome Ammonium Alum.— $\text{Cr}_2(\text{SO}_4)_3 \cdot (\text{NH}_4)_2\text{SO}_4 + 24\text{H}_2\text{O} = 956.70$.—Green cryst. or powd.

—SOL.: Abt 7 W. (solut. violet in cold, & green in hot); sltly A.—USES: Mordant; tanning.

Chromium & Potassium Oxalate

$K_2Cr(C_2O_4)_3 + 3H_2O = 487.38$.—Violet-red, cryst. mass.—SOL.: 5 W. at 15° C.

Chromium & Potassium Sulphate Merck—Reagent—Cryst.

$Cr_2K_2(SO_4)_4 + 24H_2O = 998.82$.—Dark violet-red cryst.—SOL.: Abt 5 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Aluminum (Al).....	0.020%
Ammonium Comp'ds (NH ₃)...	0.010%
Iron (Fe).....	0.010%
Other Heavy Metals.....	0.00%

Chromium & Potassium Sulphate Merck—C. P.—Cryst.

Chrome Alum.— $Cr_2K_2(SO_4)_4 + 24H_2O = 998.82$.—Dark violet-red cryst. (ruby-red by transmit. light); or light-violet powd.—SOL.: Abt 5 W. (violet cold, green hot); insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Aluminum (Al).....	0.030%
Ammonium Salts (NH ₃).....	0.030%
Iron (Fe).....	0.03%
Other Heavy Metals.....	Trace

do. —Cryst. or Powd.

DESCRIPT., SOL., &c.: As of preced'g.—USES: *Techn.*, mordant f. dyeing fabrics uniformly, tanning leather, printing calico, manuf. inks, rendering glue & gum insoluble, manuf. o. chromium salts, & water-proofing fabrics.

CHROMOSANTONINOXIM—see Santoninoxim

CHROMULE—see Chlorophyll

CHROMYL CHLORIDE—see Chromium Oxychloride

Chrysarobin Merck—U.S.P. X

Medicinal "Chrysophanic Acid" (improper name); Purified Goa Powd.—Mixture of neut. prin. fr. Goa powd., a substce deposited in wood of *Vouacapoua Araroba* (Agiuar), Druce, Leguminosæ.—Micro-cryst., orange-yellow powd.; turns brownish-yellow on expos.—SOL.: v. sltly W., 385 A., 30 B., 13 C., 160 E., 180 CS₂, at 25° C., & alkalies, U.S.P.; (compl. in fats, partially in benzin, B.P.).—ACTION: Antiparasitic; Alter.; Emetic; Cathart.—USES: *Intern.*, rarely in psoriasis & o. skin dis.—*Extern.*, psoriasis, herpes tonsurans, pityriasis versic., favus, alopecia areata, hemorrhoids; do not cover large surface at one time.—APPL.: Oint's 1:10–50 simple cerate or lard, 10% solut. in C., collod., or traumaticin; or chrysarobin (10), acid salicylic (10), E. (15), flex. collod. (100).—DOSE: 0.008–0.06 Gm. ($\frac{1}{8}$ –1 grn.); aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.); as emet. & cathart. 0.4–1.5 Gm. (6–23 grn.).—In VETER. MED. in chron. squamous ecz., herpes tonsurans, favus, etc., in 5%–10% oint.—CAUT.: Causes dangerous inflam. of eye if allowed to enter.

CHRYSAROBIN, CRUDE—see Araroba

Chrysarobin Oxidized

Dark brown powd.—SOL.: B., C., & hot A.—USES: *Extern.*, as of chrysarobin, in 5%–10% oint, but where a milder action than that of chrysarobin is desired (e.g., facial & genital ecz., etc.).

CHRYSAUREINE—see Tropaeoline OOO No. 2

Chrysene

$C_{10}H_6.(CH)_2C_6H_4 = 228.19$.—Hydrocarbon fr. coal tar.—White when pure, but us'ly a yellow cryst. powd.—SOL.: v. sltly B., more eas. A.—MELT.: 250° C.—BOIL.: 448° C.

CHRYSEOLINE—see Yellow T

Chrysoidine Orange

Diaminoazobenzene Hydrochloride.— $C_6H_5-N_2.C_6H_3(NH_2)_2HCl[1:2:4] = 246.66$.—Reddish-brown, cryst. powd.—SOL.: A., W. with brown color.—USES: *Medic.*, in trypanosomiasis.—*Techn.*, color. confectionery & liqueurs. Dyes wool, silk & cotton orange.—DOSE: Hypoderm., 0.008 Gm. ($\frac{1}{8}$ grn.) grad. incr. to 0.02 Gm. ($\frac{1}{2}$ grn.).

CHRYSOINE—see Yellow T

Chrysolite—Mineral

Olivine.—OCCUR.: Italy; Norway; Sweden; U. S.; Mexico; Canada.—COMPOS.: $SiO_4(MgFe)_2$.—CRYST. SYST.: Rhomb.—LUSTER: Vitr.—COLOR: Bottle-green, olive-green, somet. brownish, yellowish-brown or yellowish-green.—STREAK: Wh. or yellowish.—CLEAV.: None.—FRACT.: Conch.; brittle.—HARDN.: 6.5–7.—SP. GR.: 3.27–3.37.

CHURCHILL'S IODINE, CAUSTIC—see Solution Iodine, Caustic

CHYMOsin—see Rennin

CICHORIUM—see Chicory

CICUTINE—see Coniine

Cignolin

1:8 Dioxanthranol.— $C_{14}H_7(OH)_3 = 226.15$.—Yellow, cryst. powd.—SOL.: Acetone, A.; more eas. in B., C., xylene; misc. w. fats; insol. W.—USES: As of chrysarobin (said to be better and stronger than this) in 0.1–0.05:100 oint., or acetone or B. solut. in psoriasis, seborrheic ecz., pityriasis, folliculitis, etc.

Cimicifuga—U.S.P. X; B.P.C.

Black Cohosh; Black Snake Root; Actæa; Bugbane; Bugwort.—Dried rhizome & roots of *Cimicifuga (Actæa) racemosa* (L.), Nuttall, Ranunculaceæ.—HABIT.: U. S.; Canada.—CONSTIT.: Resin; isoferulic acid; cimicifugin (abt 18%); tannin; volat. oil; sugar.—ACTION: Alter.; Analg.; Diuret.; Diaphor.; Expector.; Antispasm.; Sedat.; Emmen.—USES: Chiefly in rheum.; also in fevers, asthma, chorea, heart dis. (when digitalis contraindic.), myalgia, neuralg., hyster., dropsy, dysmenorr., & also amenor.—DOSE: 0.3–3 Gm. (5–45 grn.); aver. dose 1 Gm. (15 grn.).—Extr., 0.2–0.6 Gm. (3–10 grn.).—Fl'extr., 0.3–2 cc. (5–30 M).—Tr. (1:10) 1.3–4 cc. (20–60 M).

Cimicifugin

Macrotoxin.—Resinoid fr. roots *Cimicifuga racemosa*, Nutt.—Yellowish-brown, hygrosc. powd.—**SOL.**: A.—**ACTION**: Antispasmodic; Nerv.; Oxytocic.—**USES**: Rheum., gout, dropsy, hyst., St. Vitus's dance, dysmenorr., tinnitus aurium, & phth.—**DOSE**: 0.06–0.12 Gm. (1–2 grn.).

CINCHOLEPIDINE—see *Lepidine*

Cinchona Merck—U.S.P. X

Calisaya, or Peruvian, or Yellow, *Cinchona* Bark; Jesuits' Bark.—Dried bark of *Cinchona succirubra*, Pavon, or of the hybrids (Red *Cinchona*), or of *C. Calisaya*, Weddell, *C. Ledgeriana* Moens, & of hybrids of these w. o. spec. of *Cinchona* (Yellow *Cinchona*), Rubiaceae; cont. not less than 5% alkaloids.—**HABIT.**: South America; cultivated mostly in Java, also India.—**CONSTIT.**: Abt 35 natural cinchona alkaloids (chiefly quinine); cinchotannic acid; quinic acid; cinchona red; volat. oil; quinic acid, &c.—**ACTION**: Bitter Tonic; Febrif.; Antiper.; Astring.—**USES**: *Intern.*, malaria, anorexia, debil., &c.—*Extern.*, as poultice f. felons, gangrenous ulcers, &c.—*Techn.*, source of quinine & o. cinchona alkaloids.—**DOSE**: 0.6–1 Gm. (10–15 grn.) as tonic; 2–4 Gm. (30–60 grn.) as antiper., 2–3 t.p.d.; aver. dose 1 Gm. (15 grn.).—**Alcoh. extr.**, 0.2–0.3 Gm. (3–5 grn.) tonic, 1–2 Gm. (15–30 grn.) antiper.—**Fl'dextr.**, tonic, 1–4 cc. (15–60 M); antiper., 2–8 cc. (30–120 M).—**Tr.**, 4–8 cc. (60–120 M).

do. —Pale

Loxa, Loja, Huanuco, Cuenca, or Crown, Bark; *Cinchona Pallida*.—Bark of *Cinchona officinalis*, L., Rubiaceae.—**HABIT.**: Loxa & o. parts of Ecuador; cultivated in India.—**CONSTIT.**: *Cinchona* alkaloids (chiefly quinine, 60%–70% of the total alkaloids); otherwise like cinchona (calisaya).—**USES & DOSES**: As of cinchona (calisaya).

do. Merck—Red Bark—U.S.P. X—Ground & Quill

Cinchona Alkaloids Merck

Mixed alkaloids of cinchona bark

Cinchonamine—Pure—Cryst.

$C_{19}H_{24}N_2O = 296.30$.—Fr. *Remijia Purdieana* Wedd. (False *Cuprea* bark).—Yellowish-wh. cryst.—**SOL.**: A., B., C., E., insol. W.—**MELT.**: 185° C.—**USES**: Test'g f. HNO_3 (Arnaud-Padé).

CINCHONAMINE BISULPHATE—see *Cinchonamine Sulphate, Acid*

Cinchonamine Hydrochloride

$C_{19}H_{24}N_2O.HCl + H_2O = 350.79$.—Yellowish-wh. cryst.—**SOL.**: A., & W.—**ACTION**: Antipyret.—**USES**: Fevers, but it is stated to be rather toxic & to offer no advantages over quinine.

Cinchonamine Nitrate

$C_{19}H_{24}N_2O.HNO_3 = 359.32$.—Wh. to yellowish cryst.—**SOL.**: Eas. boil., v. sltly in cold, W.; sltly A. The least soluble nitrate known.—**MELT.**: 195° C.

Cinchonamine Sulphate—Acid

Cinchonamine Bisulphate.— $C_{19}H_{24}N_2O.H_2SO_4 = 394.38$.—Colorl. cryst. powd.—**SOL.**: W.—**ACTION**, **USES**, etc.: As of cinchonamine hydrochloride.

Cinchonidine Merck—Alkaloid—Large Cryst., & Precip. Powd.

Alphaquinidine.— $C_{16}H_{22}N_2O = 294.29$.—Alkaloid fr. *Cinchona* bark.—Wh. cryst.; v. bitter taste.—**SOL.**: Dil. acids, 20 A., C., abt 200 E.; v. sltly (abt 1600) W.—**MELT.**: Abt 203° C.—Most of the salts are affected by light.—**ACTION**: Antiper.; Bitter Tonic, &c.; like quinine, but weaker.—**USES**: Intermit. & remit. fever, anorexia, &c.—*Techn.*, as oleate as moth repeller.—**DOSES**: 1–2 Gm. (15–30 grn.), betw. paroxysms; tonic, 0.06–0.12 Gm. (1–2 grn.) 3 or 4 t.p.d.—Us'y used in the form of its salts.

Cinchonidine Bisulphate Merck

Acid Cinchonidine Sulphate.— $C_{19}H_{22}N_2O.H_2SO_4 + 5H_2O = 482.44$.—Striated prisms.—**SOL.**: Eas. W., A.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Dihydrobromide Merck

$C_{19}H_{22}N_2O.2HBr = 456.14$.—Yellowish, cryst. powd.—**SOL.**: 6 W.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Hydriodide

$C_{19}H_{22}N_2O.HI + H_2O = 440.23$.—Yellowish-wh. cryst.—**SOL.**: W.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Hydrobromide Merck

$C_{19}H_{22}N_2O.HBr + H_2O = 393.23$.—Wh., odorl. cryst.—**SOL.**: Abt 50 W.; eas. A.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Hydrochloride Merck

$C_{19}H_{22}N_2O.HCl + H_2O = 348.77$.—Wh. cryst. powd.—**SOL.**: 20 cold, eas. boil., W., A., C.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Salicylate Merck

$C_{19}H_{22}N_2O.C_7H_6O_3 = 432.37$.—Colorl. cryst.—**SOL.**: A.; v. sltly W.—**USES**: Rheum.; Neuralg.; Sciatica.—**DOSE**: 0.15–0.25 Gm. (2½–4 grn.) 4–5 t.p.d.

Cinchonidine Sulphate Merck—U.S.P. X

Neutral Cinchonidine Sulphate.— $(C_{19}H_{22}N_2O)_2.H_2SO_4 + 3H_2O = 740.70$.—Wh., silky, acic. cryst.; effloresc. on exposure.—**SOL.**: 65 W., 90 A., & 620 C., at 25° C., also in 22 W. at 80° C., in 41 A. at 60° C., & alm. insol. E., U.S.P.—**USES & DOSES**: As of cinchonidine.

Cinchonidine Tannate

Comp. variab.—Yellow, amorph., tastel. powd.—**SOL.**: A.—**USES**: Intermit. & remit. fevers of children.—**DOSE**: Adults, 0.5–1 Gm. (8–15 grn.); children, 0.1–0.5 Gm. (1½–8 grn.).

Cinchonidine Tartrate

$(C_{19}H_{22}N_2O)_2 \cdot C_4H_6O_6 + 2H_2O = 774.67$.—Wh., cryst. powd.—SOL.: Hot, stlty cold, W.; hot A.

Cinchonine Merck—Alkaloid—Small Cryst., Large Cryst., or Precip. Powd.

$C_{19}H_{22}N_2O = 294.29$.—Alkaloid fr. bark var. sp. Cinchona.—Wh. to yellowish cryst., or wh. powd.; tastel., w. bitter after-taste.—SOL.: Dil. acids, 120 A., 280 C.; stlty E., & abt 3800 W.—MELT.: Abt 258° C., w. partial decomp.—ACTION: Antiper.; Bitter Tonic, &c., like quinine.—USES: Malar., intermit. & remit. fevers, anorexia, &c.—*Techn.*, test f. HCl (Cohn-Mering) & Bi (Léger); also as oleate as moth repeller.—DOSE: *Antiper.*, 1–2 Gm. (15–30 grn.), betw. paroxysms; *tonic*, 0.06–0.12 Gm. (1–2 grn.).

Cinchonine Bisulphate Merck

$C_{19}H_{22}N_2O \cdot H_2SO_4 + 4H_2O = 464.43$.—Wh., odorl., effloresc. cryst. or powd.; v. bitter taste.—SOL.: v. eas. W., A.—USES & DOSES: As of cinchonine.

Cinchonine Dihydrobromide Merck

$C_{19}H_{22}N_2O \cdot 2HBr + H_2O = 474.16$.—Cryst. powd.—SOL.: 3 W.—USES & DOSES: As of cinchonine.

CINCHONINE FERROCITRATE—see Iron & Cinchonine Citrate**Cinchonine Hydrobromide**

$C_{19}H_{22}N_2O \cdot HBr = 375.22$.—Wh. cryst.—SOL.: 20 W., A.—USES & DOSES: As of cinchonine.

Cinchonine Hydrochloride Merck

$C_{19}H_{22}N_2O \cdot HCl + 2H_2O = 366.79$.—Fine, wh., bitter cryst.—SOL.: 1.5 A., 24 W., 22 C., 275 E.—USES & DOSES: As of cinchonine.

Cinchonine Iodosulphate

Antiseptol.—Fr. aqu. solut. cinchonine sulph., by solut. I & KI.—Reddish-brown, odorl. powd.—Abt 50% I.—SOL.: A., C.; insol. W.—USES: Inst. of iodoform, chiefly extern., but also intern.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Cinchonine Nitrate

$C_{19}H_{22}N_2O \cdot HNO_3 + \frac{1}{2}H_2O = 366.31$.—Colorl. cryst.—SOL.: Abt 25 W.; eas. A.—USES: As of cinchonine.

Cinchonine Salicylate Merck

$C_{19}H_{22}N_2O \cdot C_7H_6O_3 = 432.37$.—Wh. to reddish cryst.—SOL.: A., & hot W.—USES: Rheum., espec. in malar. regions.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

Cinchonine Sulphate Merck—N.F. V

$(C_{19}H_{22}N_2O)_2 \cdot H_2SO_4 + 2H_2O = 722.68$.—Colorl., lustr. cryst.; v. bitter.—SOL.: 60 W., 12.5 A., 3230 E., 47 C. at 25° C., also in 33 W. at 80° C., & 7 A. at 60° C., N. F. V.—USES: As of cinchonine. Also checks nose & throat secretions, hence used in coryza, hay fever, & o. dis. of respir. organs.—DOSES: As of cinchonine. In hay fever, coryza, etc., 0.25–0.36 Gm. (4–6 grn.) 3–4 t.p.d.; aver. dose 0.15 Gm. (2½ grn.).

Cinchonine Tannate

Variab. comp.—Yellow, amorph. powd.—SOL.: A.; v. stlty in W.—USES: As of cinchonine.

Cinchophen Merck—U.S.P. X

Acid Phenylcinchoninic; 2-Phenylquinoline-4-Carboxylic Acid; Quinophan (B.P.C.); Phenoquin; Agotan.— $C_6H_5 \cdot C_9H_5N \cdot COOH = 249.18$.—Sm., colorl. needles, or wh. or yellowish-wh., odorl., stlty bitter, cryst. powd.—SOL.: Abt 120 A., abt 400 C., 100 E. at 25° C., alm. insol. cold W.—MELT.: Abt 210° C. w. part. decomp'n.—ACTION: Uric-Acid Eliminant.—USES: Acute gout, non-uratic joint affections (artic. acute artic. rheum.), sciatica.—DOSE: Aver., 0.5 Gm. (8 grn.). In gout, 0.5–1 Gm. (8–15 grn.) 3–4 t.p.d. (best w. 15 Gm. [½ oz.] sod. bicarb. per day); in artic. rheum., 3–5 Gm. (45–75 grn.) p.d.

CINCHOTINE—see Quinidine**CINENE—see Dipentene****CINEOL—see Eucalyptol****CINIS JOVIS—see Tin Oxide, Gray****Cinnabar—Mineral**

OCCUR.: Almaden, Spain; Idria; Jugoslavia; Italy; Russia; U. S.; & elsewhere.—COMPOS.: HgS.—CRYST. SYST.: Hexag. trapezoh. tetartoh.—LUSTER: Adamantine to earthy.—COLOR: Cochineal-red, scarlet, reddish-brown, black.—STREAK: Scarlet.—CLEAV.: Perfect hexag. prism.—Brittle.—HARDN.: 2–2.5.—SP. GR.: 8–8.2.—USES: Ore fr. which mercury is obt. on the large scale.

CINNABAR, ARTIFICIAL—see Mercury Sulphide, Red**CINNABAR, AUSTRIAN—see Lead Chromate, Red****CINNABAR, GREEN—see Chromium Oxide, Anhydrous****CINNABAR, INFLAMMABLE—see Idrialite****CINNAMAL, or CINNAMALDEHYDE—see Aldehyde Cinnamic****CINNAMENE [or, -OL]—see Styrene****Cinnamon, Ceylon—B.P.**

Dried bark of cultivated trees of *Cinnamomum zeylanicum*, Breynia, Lauraceae.—HABIT.: Ceylon, Sumatra, Borneo; cultivated in tropical Africa, America, & Asia.—CONSTIT.: Volat. oil (1%–2%); cinnamic aldehyde; tannin; sugar; coloring matter.—ACTION: Stomachic; Carmin.; Astring.; Stim.—USES: As flavor; source of oil.—DOSE: 0.6–1.3 Gm. (10–20 grn.).—Comp. Powd., B.P. (cinnam., cardam., ginger), 0.6–2.6 Gm. (10–40 grn.).—Spirit, B.P. (10% oil), 0.3–1.3 cc. (5–20 M).—Tr., B.P. (1:5), 2–4 cc. (30–60 M).—Water (fr. oil), 30–60 cc. (1–2 fl. oz.).

do. Saigon—U.S.P. X

Dried bark of *Cinnamomum Loureirii*, Nees, Lauraceae.—HABIT.: Anam (Cochin China); cultivated in Java, Sumatra, S. America, &c.—CONSTIT., USES & DOSES: As of Ceylon cinnamon; aver. dose 0.25 Gm. (4 grn.).

CINNAMON BROWN—see Bismarck Brown

CINNAMON, CHINESE—see Cassia Bark
 CINNAMON, WHITE, or WILD—see Canella
 CINNAMON-WOOD—see Sassafras

CINNAMOYLPARAOXYPHENYLUREA—see Elbon
 CINNAMYL ALDEHYDE—see Aldehyde Cinnamic
 CINNAMYL CINNAMATE—see Styracin

Cinnamyl-Eugenol

$C_3H_5.C_6H_3(OCH_3)CO_2(CH)_2C_6H_5 = 294.24$.—Colorl., odorl., tastel. needles.—SOL.: C., E., acetone, hot A.—MELT.: $90^\circ-91^\circ$ C.—ACTION: Antisep.; Antituberc.—USES: Hypoderm. inst. of eugenol in tuberculosis.

CINNAMYL-GUAIACOL—see Guaiacol Cinnamate

CINNYL CINNAMATE—see Styracin

Cissampelos—B.P.C.

Dried root of *Cissampelos Pareira*, L., Menispermaceæ.—HABIT.: India; Ceylon.—CONSTIT.: Berberine (chiefly; formerly called "pelsine"); deyamettin.—ACTION: Bitter; Diuret.—USES: Catarrhal affect. of genito-urinary organs.—DOSE: Decoct. (1:8) 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.).—Liq. Extr., 2–8 cc. (30–120 M).

Citarin

Sodium Anhydromethylenecitrate.— $(CH_2COONa)_2.CO.CH_2OOC = 248.08$.—Wh., cryst. powd.—SOL.: Aht 1.5 W.; insol. A.—ACTION: Antilitheic; Uric-acid solvent.—USES: Acute & chron. gout, rheum., & in persistent headache fr. gouty diathesis.—DOSE: 1–2 Gm. (15–30 grn.) 3–4 t.p.d.—INCOMPAT.: Acids, alkalies; heat.—NOTE: Prepare soluts. w. cold W. only; decomp. by hot W.

Citral Merck

Geranialdehyde; Geranial.— $C_{10}H_{16}O = 152.18$.—Aldehyde in lemon, lemon-grass, orange, & some o. volat. oils.—Light-yellow liq.; strong lemon odor.—SP. GR.: 0.893–0.897 at 15° C.—BOIL.: $224^\circ-229^\circ$ C. w. part. decomp., B.P.C.—USES: Flavor., & fortifying oil of lemon.—CAUT.: Keep cool & dark.

Citresia

Magnesium Acid Citrate.— $MgHC_6H_5O_7 + 5H_2O = 304.48$.—Wh. or stly yellowish wh. cryst., odorl. substce.—SOL.: Eas.: W.; insol. A., C., E.—ACTION: Lax.; Purg.—USES: As of solut. magn. citrate.—DOSE: As lax., 25 Gm. (6 dr.); as purg., 50 Gm. ($\frac{1}{2}$ oz.).

CITRINE OINTMENT—see Ointment Mercury Nitrate

Citro-Molybdic Acid Paper

Mann's Paper.—Paper impregnated w. a solut. made fr. the product obt. by fusing 1 part molybdic acid w. 2 parts citric acid, the paper being then dried.—USES: Detect. water in A., E., air, &c.; the dry blue paper is decolorized by moisture in air, or by W. in liquids.

Citro-Picric Acid Paper, Geissler-Oliver

Wh. paper impregnated w. a solut. of picric & citric acids & dried.—USES: Detect. albumin

in urine. On immersing a strip of the paper in urine, albumin is pptd.

Citro-Potassium Ferrocyanide Paper, Geissler-Oliver

Wh. paper impregnated w. a solut. potassium ferrocyanide & citric acid & dried.—USES: Detecting albumin in urine. On immersing a strip of the paper in urine, albumin is pptd.

Citro-Potassium Mercuric Iodide Paper, Geissler-Oliver

Wh. paper impregnated w. a solut. potass.-mercuric iodide & citric acid.—USES: Detecting albumin in urine. On immersing a strip of the paper in urine, albumin is pptd.

Citro-Sodium Tungstate Paper, Geissler-Oliver

Wh. paper impregnated w. a solut. sod. tungstate & citric acid & dried.—USES: Detecting albumin, mucin, uric acid, peptones, & creatinin in urine. On immersing a strip of the paper in urine a ppt. forms.

CITROIN A—see Naphthol Yellow S

Citrullin

Resinoid fr. *Citrullus Colocynthis*, L.—Yellow, amorph. powd.—SOL.: A., E.—ACTION: Cathartic.—USES: General purg., pref. by rectum. Also used in veter. med.—DOSE: Adults, 0.01–0.02 Gm. ($\frac{1}{10}$ – $\frac{1}{5}$ grn.) diss. in 1 cc. (15 M) each A. & G., & dil. w. W., & given by rectum.

Civet

Zibeth.—Unctuous secretion fr. receptacles between the anus & genitalia of both male & female *Viverra Civetta* (Civet cat), Schreber, of Africa, & fr. *V. Zibetha*, Schreber, of the East Indies.—Semisolid, yellowish to brown, unctuous substance; unpleasant, subacrid, bitter taste; fusible, & burns without leaving much residue.—SOL.: Partly in hot A., & in E.; insol. in W.—CONSTIT.: Fixed & volat. oils; ammonia; coloring matter; resin.—USES: Formerly used like castor; now used only in perfumery as a fixative.

Clark's Soap Solution

A solut. of 20 Gm. potash soap in 1 liter 56% (by vol.) alcohol, & standardized against a solut. of 0.5233 Gm. $BaCl_2.2H_2O$ per liter, so that 45 cc. of the soap solut. is exactly equiv. to 100 cc. $BaCl_2.2H_2O$ solut.—USES: In water analysis, for determ. hardness.

Clausthalite—Mineral

OCCUR.: Clausthal, Harz Mts.—COMPOS.: $PbSe$.—CRYST. SYST.: Reg. heloh.—COLOR.: Lead-gray, somewh. bluish.—CLEAV.: Cubic.—SP. GR.: 7.6–8.8.

CLEAVERS, or CLEAVERWORT—see Galium

CLEMEN'S SOLUTION—see Solution Arsenic

CLIMBING IVY—see *Rhus Toxicodendron*

CLONAZONE—see Chloramine

CLOTBUR—see Lappa

Clove—U.S.P. X; B.P.; Fr. Cod.

Caryophyllus.—Dried flower-buds of *Caryophyllus aromaticus* L. (*Eugenia Caryophyllata*, Thunb., B.P.; *Jambosa Caryophyllus*, Niedenzu), Myrtaceæ.—**HABIT.**: Molucca Islands; Zanzibar; Sumatra; S. America; W. Indies, &c.—**CONSTIT.**: Volat. oil (15%–20%, chiefly eugenol); caryophyllin; tannin; gum; resin.—**ACTION**: Stim.; Stomach., Carmin., & Antiemet.—**USES**: *Intern.*, flatul. colic, dyspep., & to arrest vomiting.—*Extern.*, the insp. aqu. extr. is employed f. clearing corneal opacities, a solut. being instilled twice daily at intervals of 5–10 min.—*Techn.*, manuf. oil cloves, eugenol, vanillin, chocolate; also in baking.—**DOSE**: 0.3–0.6 Gm. (5–10 grn.); aver. dose 0.25 Gm. (4 grn.).—**Infus.**, B.P. (1:40), 15–30 cc. (4–8 fl. dr.).

CLUB-MOSS—see *Lycopodium*

Coagulen

Hemostatic prep. fr. blood platelets; 1 Gm. represents 20 Gm. dried blood.—Yellowish, gran., odorl., sweet powd.—**SOL.**: v. eas. W.; also in A., C., E., & physiol. NaCl solut.—**Alm.** instantly coagulates blood.—**USES**: *Extern.*, 5% solut. by spray directly to part, & also on tampons; also given by intramusc., subcut., or intravenous inj., but the subcut. or intravenous inj. is contraindicated where tendency to thrombosis or embolism exists, e.g., in aneurism, arteriosclerosis, heart weakness, phlebitis, certain stages of syph., & in varicose veins. Solut. should be freshly made w. physiol. NaCl solut., & should be sterilized by boil. 3 minutes.

Coagulose

Obt. by pptng normal horse serum.—Sterile, freely sol. powd.—**ACTION**: Hemostatic.—**USES**: Check bleeding, partic. in hemophiliacs.

"**COAL TAR, COLORLESS**"—see *Pixalbol*

Cobalt—Nickel-free

Co = 58.97; disc. in 1735 by Brandt.—Gray, hard, magnetic, & somewhat. mall. metal.—**SOL.**: Eas. HNO₃; slowly in cold, more eas. hot, HCl or H₂SO₄.—**Sp. Gr.**: 8.6–8.9.—**MELT.**: 1491°–1500° C.

do. —Sheet

Whitish, lustr. hard sheets.—**USES**: *Techn.*, chiefly for galvanoplasting iron, steel, etc.; alloys; coloring glass; manuf. Co salts, inks, paints & varnish (as drier), ceramics, incandescent filaments, & cutting instruments; as catalyst in hardening oils, &c.

Cobalt Acetate Merck—C.P.

Co(CH₃.CO₂)₂ + 4H₂O = 249.10.—Red cryst.; acetic odor; when dehydrated at 140° C. become reddish-blue.—**SOL.**: Eas. W.; A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.010%
Sulphate (SO ₃)	0.020%
Alkalies & Earths	0.250%
Copper (Cu)	0.003%
Iron (Fe)	0.005%
Nickel (Ni)	0.500%

USES: *Chem.*, as test f. K (Bowser).—The *technical* grade is used as a bleacher & drier of lacquers & varnishes, & f. manuf. sympathetic ink.

Cobalt Arsenate—Cobaltous, Tertiary

Erythrine.—Co₃(AsO₄)₂ + 8H₂O = 598.96.—Peach- to blood-red color when freshly pptd, but violet when dried.—**SOL.**: Dil. mineral acids, & in NH₄OH; insol. W.—**USES**: *Techn.*, f. painting on glass & porcelain in light-blue colors.

COBALT-ARSENIC PYRITES—see *Danaite*

COBALT BLACK—see *Cobalt Oxide, Cobaltic*

COBALT BLACK I A—see *Cobalt Oxide, "F.F.K.O."*

COBALT BLUE—see *Cobalt Oxide, "F. U."*

Cobalt Bromide—Cobaltous

CoBr₂ + 6H₂O = 326.91.—Pale-red to violet cryst.—**SOL.**: W. w. red color, & in A. w. deep blue color.—**USES**: Hygrometers.

Cobalt Carbonate—Basic

Cobaltous Carbonate.—Approx. CoCO₃.2CoO + 4H₂O = 340.98.—Violet-red powd.; cont's abt 40% Co.—**SOL.**: Dil. acids w. evol. of CO₂, & in NH₄OH; insol. W.—**USES**: Manuf. cobalt oxides & cobalt pigments.

Cobalt Chloride Merck—C.P.

CoCl₂ + 6H₂O = 237.99.—Dark-red, short columnar cryst.—**SOL.**: v. eas. W. w. red color; in A. (w. blue color), E., acetone.

MAXIMUM OF IMPURITIES

Sulphate (SO ₃)	0.018%
Alkali Salts	0.30%
Iron (Fe)	0.020%
Nickel (Ni)	0.50%
Zinc (Zn)	0.080%
Other Foreign Metals	0.000%

USES: Test f. alcohol (Ganassini), H₂O₂ (Leuchter), cane sugar (Papasogli), & W. in A. (Stahl).

do. Merck—Pure

Descript., **SOL.** &c: As of preced'g.—**USES**: Sympathetic ink, barometers, hygrometers, galvanoplasting; painting on glass & porcel.; absorbent of military poison gas & ammonia; in industrial gas masks.

Cobalt Chromate—Cobaltous, Basic

Compos. variable.—Brown powd.—**SOL.**: Mineral acids, & in solut. CrO₃.—**USES**: In ceramics, for obt'g green tints.

Cobalt Citrate—Cobaltous

Co₃(C₆H₅O₇)₂ = 555.05 + aq.—Rose-red, amorph. powd.—**SOL.**: Sltly W.

Cobalt Cyanide—Cobaltous

Co(CN)₂ + 3H₂O = 165.05.—Reddish-gray powd.—**SOL.**: Solut. KCN.

Cobalt Formate—Cobaltous

Co(HCOO)₂ + 2H₂O = 185.03. — Red cryst. powd.—**SOL.**: W.

COBALT GRAY II A—see *Cobalt Oxide, "F. K. O."*

Cobalt Hydroxide—Cobaltic

Cobaltic Hydrate.— $\text{Co}(\text{OH})_3 = 109.99$.—Dark brown powd.—**SOL.**: Acids (w. hot HCl or H_2SO_4 , Cl or O evolved); insol **W.**—**USES**: Catalyst.

do. —Cobaltous

Cobaltous Hydrate.— $\text{Co}(\text{OH})_2 = 92.99$.—Rose-red powd., becom'g brown on expos.—**SOL.**: Acids; insol **W.**

Cobalt Iodide—Cobaltous

$\text{CoI}_2 + 6\text{H}_2\text{O} = 420.91$; eas. loses **I.**—Dark-red, hexagon. prisms, when recent, but effloresce already at 27°C .; at 130°C . bec. anhydrous, & is then a black, graphite-like mass.—**SOL.**: **E. w.** green color; in **C. w.** blue color; in **W.** soluts may be red, green, or blue; the aq. solut. sat'd at 15°C . becomes red at -10°C . & on rise of temp. exhibits every shade of color fr. brown to olive-green.—**USES**: In hygrometers.

Cobalt Nitrate Merck—Reagent—Free fr. Nickel

$\text{Co}(\text{NO}_3)_2 + 6\text{H}_2\text{O} = 291.08$.—Red, deliq. cryst.—**SOL.**: Readily in abt 1 **W.**, 1 **A.**—**MELT.**: 50° – 60°C .

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.005%
Chloride (Cl)	0.003%
Alkali Salts	0.250%
Zinc (Zn)	0.030%
Lead (Pb)	0.000%
Copper (Cu)	0.002%
Nickel (Ni)	0.020%
Iron (Fe)	0.005%

USES: Blow-pipe anal. f. detect'g **Al**, **Zn**, **Fe**, **Mg**; differentiating citric, malic & tartaric acids, & betw. aragonite & calcite (Meigen); reag. f. alcohol (Azzarello), acetates (Benedict), **K** (Erdmann), **HCN** (Lea), cane sugar (Papasogli), **Zn** (Rinmann), H_2O_2 (Schmatolla), **Al** (Thenard), **Fe** (Venable); prepar. solut. sodium cobaltic nitrite f. detect'g **K**; catalyst.

Cobalt Nitrate Merck—C.P.

Normal Cobalt Nitrate.— $\text{Co}(\text{NO}_3)_2 + 6\text{H}_2\text{O} = 291.08$.—Red, monoclin., deliquescent. cryst.—**SOL.**: Eas. abt 1 **W.** or **A.**—**MELT.**: 50° – 60°C .

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.010%
Sulphate (SO_3)	0.020%
Alkali Salts	0.30%
Copper (Cu)	0.005%
Iron (Fe)	0.020%
Lead (Pb)	0.020%
Nickel (Ni)	0.5%
Zinc (Zn)	0.080%

USES: As of the Reagent, above.

do. Merck

DESCRIPT., & **SOL.**: As preced.—**USES**: *Intern.*, per os or hypoderm. 20–30 cc. (5–8 fl. dr.) of 0.5% solut., as antid. in poison. by **HCN**.—*Techn.*, Manuf. cobalt pigments & sympathetic inks; decorating stoneware & porcelain.

Cobalt Oxalate—Cobaltous

$\text{CoC}_2\text{O}_4 + 2\text{H}_2\text{O} = 183.01$.—Rose-red powd.—**SOL.**: NH_4OH & in soluts ammon. carbonate &

alkali oxalates; sltly hot soluts NH_4Cl , NH_4NO_3 , or $(\text{NH}_4)_2\text{SO}_4$; insol. **W.**

Cobalt Oxide Merck

Cobalt Black, or Peroxide, or Sesquioxide.— $\text{Co}_2\text{O}_3 = 165.94$.—Velvet-black powd.—**SOL.**: Acids (w. hot HCl or H_2SO_4 , Cl or O evolved); insol. **W.**—**USES**: *Techn.*, chiefly f. color. enamels in pottery, & paint. on porcel., glass.

do. Merck—I A—"F. F. K. O."

Cobalt Black I A.—Black powd.—**USES**: As preced.

do. II A—"F. K. O."

Cobalt Gray II A.—Gray powd.—**USES**: As of cobalt oxide.

do. Merck—III A, Black—"R. K. O."

Velvet-black, v. sltly sol. powd.—**USES**: As of cobalt oxide.

do. Merck—Blue—"F. U."

Cobalt Blue.—Sky-blue powd., cont. **Al**, *i.e.*, the blue color is developed by fusion w. **Al** compds.—**USES**: As of cobalt oxide.

The above cobalt oxides are of the most varying composition. The designations "F. F. K. O.," etc., refer to the various types of preparations on the market. The preparations are all used f. technical purposes, & chiefly for coloring enamels, glazing pottery, painting on glass & porcelain, in water-glass paints, etc.

Cobalt Paper

Wh. paper dipped in a solut. CoCl_2 , colored blue w. methylene blue, & dried.—Indicator in volumetric estimation of **Zn**, **Cu**, & **Ni**, using Na_2S .—An excess of the sulphide develops a black spot on the paper.

COBALT PEROXIDE—see Cobalt Oxide

Cobalt Phosphate—Cobaltous, Tertiary

$\text{Co}_3(\text{PO}_4)_2 + 8\text{H}_2\text{O} = 511.12$.—Pink powd.—**SOL.**: Mineral acids; insol. **W.**—**USES**: *Techn.* in glazes, enamels, & pigments; as flux.

COBALT SESQUIOXIDE—see Cobalt Oxide

Cobalt Sulphate Merck—C.P.

$\text{CoSO}_4 + 7\text{H}_2\text{O} = 281.14$.—Red monoclin. cryst.—**SOL.**: Abt 3 **W.**; sltly **A.**

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.010%
Alkali Salts	0.30%
Iron (Fe)	0.030%
Nickel (Ni)	0.50%
Zinc (Zn)	0.080%
Other Foreign Metals	Trace

USES: Test f. **Ni**, & **Zn** (Pfeuer).

do. Merck

DESCRIPT.: As preced'g.

do. —Techn.

DESCRIPT. & **SOL.**: As preceding.—**USES**: manuf. **Co** oxides & **Co** pigments used in decorating porcelain; cobalt-plating steel, iron, copper, brass & zinc galvanically; manuf. black flux f. porcelain painting & cobalt glaze for porcelain.

Cobalt Sulphide—Cobaltous

$\text{CoS} = 91.03$.—Black powd.—**SOL.**: HNO_3 , H_2SO_4 , & hot conc. HCl ; insol. W .

Cobalt Sulphocyanate—Cobaltous

$\text{Co}(\text{SCN})_2 + 4\text{H}_2\text{O} = 247.19$.—Deep-blue, hygrosc. cryst.—**SOL.**: W . w. blue color; on dilution w. pink color.—**USES**: Sympathetic ink.

Cobalt Tartrate—Cobaltous

$\text{CoC}_4\text{H}_4\text{O}_6 = 207.02$ & aq. in variab. quant.—Reddish, fine powd.—**SOL.**: Eas. dil. acids, sltly W .

COBALT VIOLET—see Cobalt & Ammonium Phosphate

COBALT YELLOW—see Cobalt & Potassium Nitrite

Cobalt & Ammonium Phosphate—Cobaltous

Cobalt Violet.— $\text{CoNH}_4\text{PO}_4 + \text{H}_2\text{O} = 190.07$.—Violet, cryst. powd.—**SOL.**: Acids; insol. W .

Cobalt & Ammonium Sulphate

$\text{CoSO}_4(\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O} = 395.09$.—Red, monoclin., or also prismat., cryst.—**SOL.**: Eas. W .

Cobalt & Potassium Cyanide

Potassium Cobaltcyanide, or Cobaltihexacyanide.— $\text{K}_3\text{Co}(\text{CN})_6 = 332.37$.—Pure wh. to yellowish cryst. powd.—**SOL.**: v. eas. W ; insol. A .

Cobalt & Potassium Nitrite

Cobalt Yellow; Potassium Cobaltinitrite, or Cobaltihexanitrite; Fischer's Yellow; also improperly "Indian Yellow."— $\text{CoK}_3(\text{NO}_2)_6 + \text{H}_2\text{O} = 470.33$.—Yellow powd.—**SOL.**: In mineral acids w. decomp.; sltly in acetic acid; insol. A , W .—**ACTION**: Antispasm.; Antidyspneic.—**USES**: Asthma; dyspnea, high blood pressure, & albuminuria due to heart dis.—*Techn.*, as oil- & water-color pigment; also painting on glass & porcelain, & coloring rubber.—**DOSE**: 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.) sev'l t.p.d.

Cobalt & Potassium Sulphate

Potassium Cobaltosulphate.— $\text{CoK}_2(\text{SO}_4)_2 + 6\text{H}_2\text{O} = 437.39$.—Red monoclin. prism. cryst.—**SOL.**: W .

Coca—B.P.C.; Fr. Cod.

Erythroxylon; Coca; Hayo; Ipado.—Dried lvs of Erythroxylon Coca, Lamarck, Erythroxylaceæ, known commercially as Huanaco Coca, or of E. truxillense, Rusby, known commercially as Truxillo Coca.—**HABIT.**: Bolivia; Chili; Peru; Java.—**CONSTIT.**: Up to 1.5% alkaloids; cocaine (abt 70% of total alkaloids); benzoylecgonine; α - & β -hygrine; cinnamylcocaine; truxillococaine (truxilline, isatropylcocaine, or cocaine); cocaicine; cocatannic acid; resin; wax, &c.—**ACTION**: Stim.; Diaphor.; Anodyne; Anaphrodis.; Narcotic; Cerebr. Stim.; Bitter Tonic.—**USES**: Hyster., melancholia, debil., dyspep., musc. exhaust., & var. dis. of nerv. system.—**DOSE**: 1–4 Gm. (15–60 grn.).—**Alcoh. extr.**, 0.25–0.6 Gm. (4–10 grn.).—**Liq. extr.**, 1.3–4 cc. (20–60 M).—**Tr.** (1:5) 2–6 cc. (30–90 M).

Cocaethylene

Ethylbenzoylecgonine; Benzoylecgonine-ethyl ester.— $\text{C}_9\text{H}_{13}(\text{C}_7\text{H}_5\text{O})\text{NO}_3 \cdot \text{C}_2\text{H}_5 = 317.28$.—Homologue of cocaine, fr. benzoylecgonine & ethyl iodide by heat.—**Colorl.** cryst.; benumbs tongue & lips.—**SOL.**: A , E ; alm. insol. W .—**MELT.**: 109°C .—**USES**: Local anesth. like cocaine, but milder, hence has been recom. f. v. nervous patients.

Cocaine Merck—Alkaloid—U.S.P. X

Methylbenzoylecgonine.— $\text{C}_{17}\text{H}_{21}\text{NO}_4 = 303.26$.—Alkaloid fr. lvs of Erythroxylon Coca, Lam., & o. species of Erythroxylon.—**Colorl.** cryst.; benumb lips & tongue.—**SOL.**: 600 W ., 6.5 A ., 0.7 C ., 3.5 E ., 12 olive oil, & 30–50 liq. petrolat., at 25°C ., 270 W . at 80°C ., v. sol. warm A ., U.S.P.; (10 A . [90%], 0.5 C ., B.P.); 4 oleic acid, 10 castor oil, 3 benzene, 14 oil turpent., also in toluene, amyl alcohol, benzin; insol. G ., B.P.C.).—**MELT.**: 96° – 98°C ., U.S.P.—**ACTION**: Cerebro-spinal Stim.; Local Anesth. Hydrochloride usually used.—**USES**: As of the hydrochloride.—**DOSE**: Average, 0.015 Gm. ($\frac{1}{4}$ grn.).

do. Merck—Alkaloid—U.S.P. X—Powd.

Cocaine Benzoate

$\text{C}_{17}\text{H}_{21}\text{NO}_4 \cdot \text{C}_7\text{H}_6\text{O}_2 = 425.33$.—**Colorl.**, partly cryst., gummy mass.—**SOL.**: W , A .—**USES**: In 5% aqu. solut. like hydrochloride, chiefly hypoderm.; said to be painless.

δ - ψ -COCAINE BITARTRATE—see Psicaine

Cocaine Borate

White, cryst. powd.; abt 68% cocaine.—**SOL.**: A .—**USES**: Eye-douches & subcutan. inj.; solut. said to be more permanent than that of hydrochloride.

Cocaine Carbolate Merck

Phenol-Cocaine; Cocaine Phenate.—Fr. 76 cocaine & 24 phenol by fusion.—Butter-like, alm. colorl., partly cryst. masses.—**SOL.**: A ., dil. A ., E ; insol. W .—**ACTION**: Local Anesth.; Sedat.; Analg.; Anticatar.—**USES**: *Extern.*, loc. dental anesth.; nasal, laryngeal, & pharyngeal catarrh; w. acetanilid f. dust. throat in catarrh; inhaled w. menthol; dis. of respir. org.; also in rheumat.—**DOSE**: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) 1–2 t.p.d. in capsules.—*Inj.*, 1 cc. (15 M) of 0.7% solut. in dil. A .—**APPL.**: 1%–3% solut. in 30% alc.; 5% powd. w. acetanilid, or pure.

Cocaine Citrate

$(\text{C}_{17}\text{H}_{21}\text{NO}_4)_2\text{C}_6\text{H}_8\text{O}_7 = 798.62$.—Wh. cryst.—**SOL.**: W .—**USES**: As of cocaine, in dentistry.—**DOSE**: 0.003–0.06 Gm. ($\frac{1}{20}$ –1 grn.).

Cocaine Hydriodide

$\text{C}_{17}\text{H}_{21}\text{NO}_4 \cdot \text{HI} = 431.19$.—Yellowish cryst.—**SOL.**: Slty W , A .—**USES**: Cocaine cataphoresis in dental surgery.

Cocaine Hydrobromide

$\text{C}_{17}\text{H}_{21}\text{NO}_4 \cdot \text{HBr} = 384.19$.—Wh. cryst.—**SOL.**: W .—**USES & DOSES**: As of the hydrochloride.

COCAINE HYDROCHLORATE—see Cocaine Hydrochloride

Cocaine Hydrochloride Merck—U.S.P. X, Highest Purity, Medicinal.—Flakes (or Small Fluffy Cryst.), Granular (or Small Heavy Cryst.), Large Cryst., or Powd.

Cocaine Muriate, or Hydrochlorate.— $C_{17}H_{21}NO_4 \cdot HCl = 339.73$.—Colorl. cryst. or scales, or fine powd. (f. insufflat.); saline, stlty bitter taste; benumb tongue & lips.—SOL.: 0.4 W., 3.2 A., 12.5 C. at 25° C., 2 A. at 60° C., & sol. in G., insol. in E., U.S.P.; (insol. olive oil, B.P.).—MELT.: Not below 183° C., U.S.P.; 182°–186° C., B.P.—ACTION: Anesth.; Stim.; Sed.; Antisialag.; Antihidrotic; Antiprur.; Mydr.; Anod.—USES: *Intern.*, gastralgia, gastric ulcer, nervous vomiting, seasickness, hysteria, migraine, whoop-cough, asthma, angina pectoris, tabetic pains, etc.—*Extern.*, as local anesth., on muc. membr. (mouth, nose, eye, throat, intestines), in toothache, catarrh, hay fever, pharyngitis, tonsil., anal fissure, &c.; also hemostatic. Contraindicated in fatty heart, arterial atheroma, pernicious anemia, hyst., & epilepsy. MacLagan's test (see below) should be appl'd to see that no isoatropylcocaine (a heart-poison) is present.—DOSE: 0.01–0.1 Gm. ($\frac{1}{4}$ – $1\frac{1}{2}$ grn.), in solut.; aver. dose 0.015 Gm. ($\frac{1}{4}$ grn.).—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.) single; 0.15 Gm. ($2\frac{1}{2}$ grn.) p.d. (Ph. G.); o. authorities state 0.1 Gm. ($1\frac{1}{2}$ grn.) single & 0.4 Gm. (6 grn.) p.d.—APPL.: 1%–2% solut. in urethral inj., nose & throat, & eye drops; 10% solut. in vagina & rectum; general appl. 10%–20% solut.; *subcut.*, 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.) in 1%–10% solut.; in Schleich's anesth. 0.01%–0.2% solut.; in Bier's lumbar anesth., solut. of 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) in 0.5–3 cc. (8–45 M) W.—VETER. MED., laminitis in the horse, 10 cc. ($2\frac{1}{2}$ fl. dr.) of 3% solut. by inj. into plantar nerves; also in hyperemesis in dogs.—Max. Dose f. horses & cattle 1.5 Gm. (23 grn.) *subcut.*, & dogs 0.1 Gm. ($\frac{1}{2}$ grn.).—INCOMP.: $HgCl$, $HgCl_2$, $AgNO_3$; pptnts of alkaloids generally.—ANTID.: Chloral hydrate, amyl nitrite, chlorof., paraldehyde, sulphonal, caffeine, morphine, digitalis, alcohol, ammonia, appl. of ice to head.—TESTS: Medicinal cocaine hydrochlor. should bear the following stringent tests: *MacLagan's Test*: Diss. 0.1 Gm. cocaine hydrochlor. in 85 cc. cold W.; add 0.2 cc. 10% NH_4OH & stir well w. a glass rod. Within 5 min., if pure, a cryst. precip. will settle, & the liq. remain clear.—*Permanent Test*: Diss. 0.1 Gm. of the salt in 5 cc. W. w. 3 drops dil. H_2SO_4 , & add 1 drop 1:1000 solut. of $KMnO_4$. The pink tint must persist at least $\frac{1}{2}$ hour.

Cocaine Lactate

$C_{17}H_{21}NO_4 \cdot C_3H_5O_3 = 393.32$.—Thick, wh. liq.; honey consist.—SOL.: W., A.—ACTION: Anesth.; Sed. Antisep.—USES: Partic. in tuberculous cyst., w. painful irrit. of bladder.—*Inj.* (into bladder), 0.1 Gm. ($1\frac{1}{2}$ grn.) diss. in 0.5 cc. (8 M) each lactic acid (75%) & distilled W.

COCAINE MURIATE—see Cocaine Hydrochloride

Cocaine Nitrate Merck

$C_{17}H_{21}NO_4 \cdot HNO_3 = 366.28$.—Colorl. cryst.—SOL.: W., A.; stlty E.—USES & DOSES: As of the hydrochloride; preferred for use w. silver nitrate for urethr. inject. & eye dis.—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.), single; 0.15 Gm. ($2\frac{1}{2}$ grn.), p.d.

Cocaine Oleate

Solut. of cocaine in various strengths in oleic acid (e.g., 5%, N.F. IV; also 10%, 15%, 25%, & 50%).—Partly cryst. mass.—SOL.: A., oleic acid & oils.—USES: *Extern.*, local anesthesia.

COCAINE PHENATE—see Cocaine Carbolate

Cocaine Salicylate Merck

$C_{17}H_{21}NO_4 \cdot C_7H_5O_3 = 441.34$.—Wh. cryst. powd.—SOL.: v. eas. W., A.—USES: Spasmodic asthma, &c.—DOSE: 0.003–0.03 Gm. ($\frac{1}{20}$ – $\frac{1}{2}$ grn.) *subcut.*

Cocaine Sulphate Merck

$C_{17}H_{21}NO_4 \cdot H_2SO_4 = 401.34$.—Gran., wh., cryst. powd.—SOL.: W., A.—USES & DOSE: As of the hydrochloride.

Cocaine Tartrate

$(C_{17}H_{21}NO_4)_2 \cdot C_4H_6O_6 = 756.59$.—Wh., cryst. powd.—SOL.: W., A.—USES & DOSE: As of the hydrochloride.

COCCULIN—see Picrotoxin

Cocculus—N.F. V; B.P.C.

Fish-berry; Indian Berry; Cocculus Indicus; Oriental Berry.—Dried fruit of *Anamirta Cocculus*, Wight & Arnott, (A. paniculata, Colebr.), Menispermaceæ.—HABIT.: East Indies; Malay Archipelago.—CONSTIT.: Menispermine; paramenispermine; picrotoxin (chiefly, 1%–1.5%); picrotoxic acid; anamirtin (cocculin); fat (abt 50%).—ACTION: Nervine; Sedat.—USES: *Extern.*, in parasitic skin dis.; insecticide; also used as a fish poison.—*Techn.*, to prevent secondary fermentation of alcoholic liquors (but this use is very dangerous).—DOSE: 0.06–0.2 Gm. (1–3 grn.) as powd., tinct., or fl' dextr.—Fl' dextr. is used also in 2%–5% oint. or lotion f. pediculi or o. parasitic skin dis.—ANTID.: Stomach siphon, emetics, ammonia, brandy, &c.—CAUT.: Poison!

COCCULUS INDICUS—see Cocculus

Cochineal—U.S.P. X; B.P.

The dried female insects, *Coccus cacti*, L., enclosing the young larvæ.—HABIT.: Mexico, Central America; cultivated in West Indies, Canary Is., Algiers, & Southern Spain.—Abt 7000 insects to 1 lb.—CONSTIT.: Carminic acid (abt 10%); coccerin (a wax; abt 2%); fat (abt 10%). The coloring matter (alkali carminate) is cont'd only in the fatty parts of the insect, & in the yolk of the eggs, to the extent of 10%–14%.—USES: *Medic.*, in whoop-cough (rarely).—*Techn.*, f. coloring food products, toilet prep's, &c.; manuf. carmine & carminic acid; red & pink inks & lakes; also as indicator in alkalimetry.—Fl' dextr. is used f. color. medic. prep's.—DOSE: 0.12–0.6 Gm. (2–10 grn.) sev'l t.p.d. w. K_2CO_3 .—Tr. (1:10), 0.3–0.6 cc. (5–10 M).

Cochineal Paper

Wh. paper impregnated w. aqu. cochineal solut. & dried.—**USES:** Indicator (acids = red, & alkalis = violet, color).

do. —Solution—N.F. V

Fr. 65 Gm. cochineal, 32 Gm. K_2CO_3 , 32 Gm. alum, 65 Gm. potass. bitart., 450 cc. G., & W. to make 1000 cc.

do. —Tincture

Prepared by extract'g 1 cochineal w. 100 A. (25%).—**USES:** Staining nuclei, & as indic. (Luckow) in volum. determ'n of alkali carbonates where litmus is inapplicable (alkalies = violet; acids = yellowish red); f. color. foods, cosmetic preparations, &c.; also as reag. f. Pb (Blyth), U (Crolas-Ducker), Fe (Kastner), & Al (Luckow).

Cocillana—N.F. V

Dried bark of Guarea Rusbyi, Rusby, Meliaceæ.—**HABIT.:** Bolivia.—**CONSTIT.:** Rusbyine; resins (abt 2.5%); fat (abt 2.5%); tannin.—**ACTION:** Like that of ipecac; Drastic Cath. in large doses.—**USES:** In bronchitis as expectorant; night sweats of phthisis & chron. bronchitis.—**DOSE:** Aver., 1 Gm. (15 grn.).—Fl'ext., 0.5–1.3 cc. (8–20 M).

Cocoa—N.F. V

A powd. prep'd fr. the roasted cured kernels of ripe seeds of Theobroma Cacao, L. & o. spec. of Theobroma.—Brownish powd.; chocolate odor & taste.—**USES:** Nutrient.

COCOA, BRAZILIAN—see Guarana

COCOA SHELLS—see Cacao Shell

Codeine Merck—U.S.P. X—Cryst. or Powd.

Methylmorphine.— $C_{17}H_{18}(CH_3)NO_3 + H_2O = 317.28$.—Alkaloid obt'd fr. opium, or fr. morphine by methylation.—Colorl., transluc., odorl. cryst., or wh. cryst. powd.—**SOL.:** 120 W., 2 A., 13 B., 18 E., & 0.5 C. at 25° C., & 1.2 A. at 60° C., U.S.P.; freely in amyl A., methyl A., dil. acids, insol. benzin & soluts. KOH or NaOH.—**MELT.:** 154°–156° C., when anhydrous, U.S.P.—**ACTION:** Analges.; Sedat.; Hypnot.—**USES:** Inst. of morphine as analgesic, but not f. severe pains; in bronch., irritat'g cough, influenza, neuralg., rheumat., colics, ovarian pains, pains fr. tumors, insom. not due to violent pain; acute mania; to abate desire in morphine habit; diab. mell.; bladder trouble complic. w. enlarged prostate; dis. of respir. organs, &c.—**Chem.,** reag. f. allyl A. (Denigès), formaldehyde (Pollacci), & methenamine (Surre).—**DOSE:** 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.) sev'l t.p.d.; aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.).—**Inj.,** 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.).—**MAX. D.:** (all codeine salts) 0.1 Gm. (1½ grn.) single; 0.3 Gm. (5 grn.) daily.—**ANTID.:** As of morphine.—Codeine salts are less poison. than morphine salts, & rarely, if ever, are habit-forming.

Codeine Citrate

$(C_{18}H_{21}NO_3)_3.C_6H_8O_7 = 1089.89$.—Wh. cryst.—**SOL.:** W.—**USES & DOSES:** As of codeine.

Codeine Hydrobromide

$C_{18}H_{21}NO_3.HBr + 2H_2O = 416.23$.—Wh. cryst.—**SOL.:** W.—**USES:** Espec. in nerv. cough, like codeine phosphate.—**DOSES:** As of codeine.

Codeine Hydrochloride Merck

$C_{18}H_{21}NO_3.HCl + 2H_2O = 371.77$.—Sm., fine, wh. need.—**SOL.:** A., 20 W.; less than 1 boil. W.—**USES:** As of codeine.—**Dose:** 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—**Max. Dose,** 0.1 Gm. (1½ grn.) single, 0.3 Gm. (5 grn.) p.d.

CODEINE METHYLBROMIDE—see Eucodin

Codeine Nitrate

$C_{18}H_{21}NO_3.HNO_3 = 362.28$.—Sm., wh. cryst.; yellow on expos.—**SOL.:** W.—**USES & DOSES:** As of codeine.

CODEINE ORTHOGUAIACOLSULPHONATE—see Guaiacodeine

Codeine Phosphate Merck—U.S.P. X

$C_{18}H_{21}NO_3.H_3PO_4 + 2H_2O = 433.36$.—Wh. odorl. v. effloresc. cryst., or cryst. powd. Usually cont's a little more codeine than corresponds to the formula.—**SOL.:** 2.3 W., 325 A., 4500 C., & 1875 E., at 25° C., in 0.5 W. at 80° C., & 125 boil. A., U.S.P.—**USES:** Intern., in var. mental dis., morphinism; otherwise as of codeine alkaloid.—**Hypoderm.,** hypnot. & sedat. in excitem. of psychic condit.—**Best salt** f. hypoderm. use as eas. solub. & least irrit.; causes no habit.—**DOSES:** Adults, 0.01–0.06 Gm. ($\frac{1}{6}$ –1 grn.) sev'l t.p.d.; aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.); childr., under 1 yr, 0.0002 Gm. ($\frac{1}{800}$ grn.); 2–4 yrs, 0.01 Gm. ($\frac{1}{2}$ grn.) p.d.; 6 yrs, 0.02 Gm. ($\frac{1}{2}$ grn.) p.d.; 10 yrs, 0.05 Gm. ($\frac{1}{2}$ grn.) p.d.—**Inj.,** 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.).—**MAX D.:** In morphinism & psychoses, 0.1 Gm. (1½ grn.) single; 0.3 Gm. (5 grn.) p.d.—**In VETER. MED.,** in spasmodic cough in dogs, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.); horses up to 5 Gm. (75 grn.).

Codeine Salicylate

$C_{18}H_{21}NO_3.C_7H_6O_3 = 437.35$.—Wh., cryst. powd.—**SOL.:** Diffic. W.; A.—**USES:** Rheum. affect. & mening. pain.

CODEINE-SODIUMDIETHYLBARBITURATE—see Codeonal

Codeine Sulphate Merck—U.S.P. X—Cryst. or Powd.

$(C_{18}H_{21}NO_3)_2.H_2SO_4 + 5H_2O = 786.69$.—Wh. cryst. or powd.—**SOL.:** 30 W., 1280 A. at 25° C., 6.6 W. at 80° C., 440 A. at 60° C., insol. C., E., U.S.P.—**USES & DOSES:** As of codeine; partic. useful in sciatica.—**Aver. dose,** 0.03 Gm. ($\frac{1}{2}$ grn.).—**INCOMP.:** Alkalies; alkaloidal precipitants; ammonium bromide, chloride, or valerate; salts of copper, iron, or lead.—**ANTID.:** As of morphine.

Codeonal

Codeine - Sodium Diethylbarbiturate.—Mixt. abt 12% codeine diethylbarbiturate & abt 88%

sodium diethylbarbiturate. — Wh. powd. — SOL.: Abt 30 W., A., C., E.; insol. B. — MELT.: 85° C. — ACTION: Hypnot.; Sedat. — USES: Insomnia, dyspnea, pains, cough, catarrh, influenza, dysmenorrhea; also as preliminary to general narcosis, etc. — DOSE: *Sedat.*, 0.15 Gm. (2½ grn.) 3 t.p.d.; *hypnot.*, 0.3–0.5 Gm. (5–7½ grn.).

do. — Tablets, 2½ Grains Each

CODOIL—see Retinol

Coeliacin

Dried Mesenteric Glands Merck.—Fr. the mesenteric glands of sheep, dried & mixed w. milk sugar to the original wt of the fresh glands. — USES: Scleroderma. — DOSE: 0.3 Gm. (5 grn.) 1–2 t.p.d.

do. — Tablets, 0.3 Gm. Each

Coerulein

Alizarin Green. — Black paste. — SOL.: In conc. H₂SO₄, w. dark-brown color; in NaOH w. dirty green color. — USES: *Techn.*, dyeing wool, cotton, & silk a green color.

Coffee—Green

Dry unroasted seeds of *Coffea arabica*, L., Rubiaceæ. — HABIT.: Tropical Africa, especially Abyssinia; cultivated in all tropical countries (Java, West Indies, Brazil, South America, &c.). — CONSTIT.: Caffeine; caffetannic acid; caffearine; chinaic acid; arom. oil. — ACTION: Nerve stim.; Antineuralg. — USES: Migraine, & as antid. to opium. — DOSE: Alcoh. extr., 0.2–0.6 Gm. (3–10 grn.). — Fl'dextr., 1.3–4 cc. (20–60 M).

do. — Roasted—N.F. V

Roasted dried ripe seeds of *Coffea arabica*, L., or *C. liberica*, Bulliard, Rubiaceæ. — CONSTIT.: Caffeine (theine) not less than 1%; caffetannic acid; bitter principle; caffeoil. — ACTION: Stim. — USES: As antid. to opium; also to cover taste of bitter remedies, & as flavor, beverage, &c. — DOSE: Aver., 2 Gm. (30 grn.). — Fl'dextr., 1.3–4 cc. (20–60 M).

COGNAC, ESSENCE or OIL—see Ethyl Oenanthate

COLA—see Kola

COLALIN—see Acid Cholalic

Colchicine

Acetotrimethylcolchicine Acid. — C₂₁H₂₃NO₆ + ½ H₂O = 394.31. — Decomp'n prod. of colchicine. — Sm. yellow need. — SOL.: Eas. A., C.; sltly in W., alm. insol. B., absol. E. — MELT.: (hydrated) abt 145° C. — ACTION: Antipodagrig & Antirheum. — DOSE: 0.0005–0.001 Gm. (1/120–1/60 grn.).

COLCHICEIN METHYL ESTER—see Colchicine

Colchicine—U.S.P. X

Methyl Ester of Colchicein. — C₂₂H₂₅NO₆ = 399.32. — Alkaloid fr. *Colchicum autumnale*, L. — Yellow amorph. powd.; v. bitter taste. — SOL.: 22 W., 220 E., & 100 B. at 25° C., freely in A., & C., & insol. benzin. — MELT.: Abt 142°

146° C. — ACTION: Antipodagrig; Antirheum.; Antineural. — USES: Rheum., gout, uremia, chron. sciatic, asthma, cereb. congest., etc. — DOSE: 0.0005–0.002 Gm. (1/120–1/30 grn.) 2 or 3 t.p.d.; aver. dose 0.0005 Gm. (1/120 grn.). — MAX. D.: 0.002 Gm. (1/30 grn.) single; 0.005 Gm. (1/12 grn.) daily. — VETER. MED., in constipation & tympanitis, partic. in ruminants. Dose, *horses & cattle*, 0.02–0.06 Gm. (1/3–1 grn.) subcut.; in rheumat. & gout in *dogs*, 0.001–0.002 Gm. (1/60–1/30 grn.). — ANTID.: Stimulants, tannin, strong coffee, opiates, emetics (copper sulphate 0.2 Gm. [3 grn.], & zinc sulphate 0.3 Gm. [5 grn.] every 15 min.). — INCOMP.: Alkalies, tannin. — CAUT.: Very poisonous! Keep well stoppered, protected fr. light.

do. Merck—Amorph.; Contains Traces of Chloroform

DESCRIPTION & USES: As of preceding.

Colchicine Salicylated Merck

C₂₂H₂₅NO₆ + C₇H₆O₃ = 537.40. — Yellow powd. — SOL.: W., A., C. — USES: Recom. in gout & rheum. — DOSE: 0.0008 Gm. (1/80 grn.) every 4 hrs. — ANTID.: As of colchicine. — CAUT.: Keep well stoppered, protected fr. light.

Colchicine Tannate

Yellow powd.; 38% colchicine. — SOL.: A. — USES: As of colchicine. — DOSE: 0.001–0.004 Gm. (1/60–1/15 grn.).

Colchicum Corm—U.S.P. X; B.P.

Meadow Saffron; Autumn Crocus; Wild Saffron; Meadow Crocus. — Dried corm of *Colchicum autumnale*, L., Liliaceæ, (Colchicææ). — HABIT.: Central & Southern Europe; North Africa. — CONSTIT.: Colchicine (0.4%–0.5%; not less than 0.35%, U.S.P.); colchicein; colchicoresin; betacolchicoresin; starch, &c. — ACTION: Diur.; Cath.; Antarthr.; Diaph.; Emet.; Alterat.; Sedat.; Expector. — USES: Rheum., gout, dropsy, asthma, & ascites fr. hepatic obstruc. — DOSES: 0.06–0.3 Gm. (1–5 grn.); aver. dose, 0.25 Gm. (4 grn.). — Acet. extr., 0.03–0.12 Gm. (½–2 grn.); *Max. D.*: 0.2 Gm. (3 grn.) single, 0.75 Gm. (12 grn.) p.d. — Extr., 0.015–0.06 Gm. (¼–1 grn.). — Fl'dextr., 0.12–0.5 cc. (2–8 M). — Tr., 0.6–4 cc. (10–60 M). — Wine (1:5), 0.6–2 cc. (10–30 M). — ANTID.: Stomach siphon; emetics; tannin; demulcents; stimulants; opium.

do. Flowers—B.P.C.

Fresh perianth of *Colchicum autumnale*, L., Liliaceæ. — HABIT.: As of colchicum corm. — CONSTIT.: Colchicine (abt 0.1%) ? — USES: As of colchicum corm & seed. — DOSE: Aver., 0.25 Gm. (4 grn.). — Tr. (2:1 A. [70%]), 0.5–2 cc. (8–30 M).

do. Seed—U.S.P. X; B.P.; Fr. Cod.

Dried ripe seeds of *Colchicum autumnale*, L., Liliaceæ. — HABIT.: As of colchicum corm. — CONSTIT.: Colchicine (0.2%–0.8%; not less than 0.45%, U.S.P.); fixed oil (6%–8%); gum; starch; tannin; colchicoresin; proteids. — ACTION: Cath.; Emet.; Diur.; Sedat. — USES: Gout, rheum., & dropsy; also source of col-

chicine.—DOSES: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.2 Gm. (3 grn.).—Fl'dextr., 0.06–0.3 cc. (1–5 M).—Tr. (1:10), 0.3–1 cc. (5–15 M).—ANTID.: As of colchicum corm.

Colcothar

Caput Mortuum; Vitriol Red.—Fine, violet-brown powd.; consists chiefly of Fe_2O_3 .—USES: As polish, f. metals, glass, etc., & pigment; also in domestic veterinary practice.

COLIC ROOT—see Aletris; Dioscorea; Galanga

Collargol

Argentum Credé; Colloidal Silver.—Small, hard, brittle, bluish-black, scale-like pieces; abt 78% Ag.—SOL.: 20 W.—ACTION: Intern. & Extern. Antiseptic.—USES: Sepsis, cystitis, lymphangitis, cellulitis, puerperal fever, pyemia, gonorrh., erysip., artic. rheumat., diphth. (by inunction), typhoid, mixed infections in tubercul., typhoid, scarlet fever, appendicitis, anthrax (intraven.), gonococcic arth. & subac. rheum. fever, etc.—DOSE: In infectious gastric & intest. diseases, 0.012–0.06 Gm. ($\frac{1}{2}$ –1 grn.) in 1:500–100 suspens'n.—*Intraven.*, 4–15 cc. (1–4 fl. dr.) of 2% solut.; in anthrax, 10–30 cc. ($2\frac{1}{2}$ –8 fl. dr.) of 1% solut.; *intraparenchymat.*, 0.5%–1% glycerin solut.—*Inj.* of 90–120 cc. (3–4 fl. oz.) 1% solut. in cystit.—*Extern.*, mostly in 15% oint. ("Ungt. Credé"), 2–4 Gm. (30–60 grn.) of this by inunction; 1:2000–100 as wash; 5% dusting powd.; as bougies (0.2 Gm. [3 grn.] ea.); vaginal suppos. & tampons (0.05 Gm. [$\frac{1}{4}$ grn.] ea.).—VETER. MED., in septic processes, external otitis, strangles, paralysis in foals, etc.; dose for horses up to 4 Gm. (60 grn.) p.d.

β -Collidine

Betamethylethylpyridine.—(CH_3) (C_2H_5)— $\text{C}_5\text{H}_3\text{N}[3:2] = 121.14$.—Fr. cinchonine by fus. w. KOH; active constituent of "animal oil" (which is used as a denaturant of alcohol).—Yellowish liq., readily becoming brownish-red.—SOL.: A., E., C.; sltly W.—Sp. Gr.: 0.9286 at 16.8° C.—BOIL.: 178.8° C. at 758.4 mm.

Collinsonia—B.P.C.

Stone-root; Knob Root; Horse Balm; Richweed.—Root of *Collinsonia canadensis*, L., Labiate.—HABIT.: North America, fr. Ontario to Florida, & west to Kansas.—CONSTIT.: Resin; saponin; tannin; mucilage.—ACTION: Antispasmodic; Diuretic; Astring.; Anticatarrah.; Diaph.—USES: Dropsy, gravel, leucorrh., cystitis, & o. inflam. condit. of genito-urin. organs.—DOSE: 1–4 Gm. (15–60 grn.).—Extr., 0.25–0.6 Gm. (4–10 grn.).—Fl'dextr., 1.3–4 cc. (20–60 M).—Tr. (1:10), 2–8 cc. (30–120 M).

Collinsonin (Concentration)

Resinous extr. fr. *Collinsonia canadensis*, L. (Stone-root).—Choc.-colored powd.; peculiar odor; bitter, astring. taste.—SOL.: A., E., C.—ACTION: Tonic; Astring.; Diaph.; Diuretic.—USES: Catarrh of bladder, leucorr., gravel, & dropsy of Bright's dis.—DOSE: 0.12–0.25 Gm. (2–4 grn.).

Collodion Merck—C.P.

Colorl. or sltly yellowish, thick, liq.; clear, or at times sltly opalesc.; exposed in thin layers, evaporates & leaves a tough, colorl. film.

MAXIMUM OF IMPURITIES

Acids..... None

USES: Disting. bet. phenol & creosote (Allen); making dialyzing membranes.

do. Merck—U.S.P. X

Solut. pyroxylin (chiefly tetranitrocellulose) in a mixt. of 3 E. & 1 A.; cont. 245 grn. ether per fl. oz.; 24% absol. A.—Clear, or sltly opalesc., colorl., syrupy liq.—SP. GR.: 0.765–0.775 at 25° C.—USES: *Extern.*, coat. wounds & abrasions, & in corn removers.—*Techn.*, in photogr., manuf. lacquers, patent leather, artif. leather, & artif. pearls; process engraving; in cements.

Collodion, Acetone—B.P.C.

5% pyroxylin, 2% oil cloves, 25% amyl acetate, & 20% benzene, in acetone.

Collodion, Atropine—B.P.C.

0.5% atropine in acetone collod.

Collodion, Belladonna—B.P.C.

Liquid Belladonna Plaster.—50% liq. extr. bellad. w. 4% Canada turpent., 2% castor oil, $1\frac{1}{2}$ % camphor, $2\frac{1}{2}$ % pyroxylin, & ether.—USES: As of belladonna plaster.

Collodion, Blistering—B.P.

Collodium Vesicans.—Blistering Liquid (0.4% cantharidin = 50% cantharides) w. approx. 2.5% pyroxylin & 1% cochineal—USES: Vesicant.

Collodion, Cantharidal Merck—U.S.P. IX

Blistering, or Vesicating, Collodion.—Olive green, syrupy liq.; cont. abt 250 grn. ether per fl. oz.; abt 22% A. (the B. P. prep. is colored w. cochineal). 100 parts represent the active constit. of 60 parts cantharides; (the B. P. prep. is made fr. Liq. Epispasticus, & cont's abt 0.4% cantharidin).—USES: Blist. inst. of cantharides, severe neuralgic pains, pneum., & o. pain. effect.

COLLODION COTTON—see Pyroxylin

Collodion, Croton-Oil—N.F. IV

10% croton oil in flexible collodion.

Collodion Flexible Merck—U.S.P. X

Simple collodion, w. 2% camphor & 3% castor oil; 235 grn. ether per fl. oz.; $22\frac{1}{2}$ % absol. A. (the B. P. prep. cont's 4% Canada turpent. & 2% castor oil).—Yellow, syrupy liq.—SOL.: A., E.—USES: Flexible appl. to cuts & injuries, erysipelas, & var. skin dis.

Collodion, Iodine—N.F. IV

Iodine (5%) & flex. collod.; (the B. P. C. prep. cont's 6.5% I in acetone collod.).—Dark-brown, syrupy liq.—USES: Chilblains, chron. skin dis. (ecz., ringworm, alopecia, etc.), uterine tumors, etc.

Collodion, Iodoform—N.F. IV

Iodoform (5%) & flex. collod.; (the B.P.C. prep. cont. 10% iodof.).—Yellow, syrupy liq.—**SOL.**: A., E.—**USES**: *Extern.*, rheum., orchitis, erysip., & o. inflam. condit. espec. of syphil. character.

Collodion, Paraform

Collodion w. 5% paraform (trioxymethylene).—**USES**: As appl. in erythrasma, & pityriasis versicolor & rosacea. Also as caustic for soft, molluscoid nevi.

Collodion Salicylated Compound—N.F. V

10% w/v salicyl. acid, 10% fl'extr. cannab., & flex. collod.; (salicyl. acid 12%, extr. cannab. 2%, & acetone collod., B.P.C.).—**USES**: Corn remover.

Collodion, Salicylic—B.P.C.

Salicylic acid (12%) & acetone collod.—**USES**: Warts, etc.

Collodion, Styptic—N.F. V; B.P.C.

Styptic Collod.—Tannic acid, 16% w/v, U.S.P.; (the B.P.C.: Tannic acid 15%, benzoic 1.5%, & collod.).—**USES**: To check bleeding fr. leech bites, small wounds, abrasions, etc.

COLLODION, VESICATING—see Collodion, Cantharidal

COLLODION WOOL—see Pyroxylin

COLLOIDAL IODINE—see Iodine, Colloidal

COLLOXYLIN—see Pyroxylin

Colocynth—U.S.P. X; B.P.; Fr. Cod.

Bitter Apple; Bitter Cucumber; Bitter Gourd.—Dried pulp of unripe but fully grown fruit of *Citrullus Colocynthis*, Schrader, Cucurbitaceæ.—**HABIT.**: Mediterranean region; Asia; Africa; Syria.—**CONSTIT.**: Colocynthin; colocynthin glucoside; colocynthidin; pectin; resinoids; albuminoids.—**ACTION**: Purgative; Emmen.; Hydragogue Cathart.; Hepat. Stim.; Diuret.—**USES**: Obstin. constip. & dropsical condit.—Small doses bitter stomachic; large doses emetic; alcoholic tinct. also used as an insecticide.—**DOSES**: 0.12–0.3 Gm. (2–5 grn.) lax.; aver. dose 0.1 Gm. (1½ grn.); 0.3–0.6 Gm. (5–10 grn.) drastic purg.—**MAX. D.**: 0.3 Gm. (5 grn.) single, 1 Gm. (15 grn.) p.d.—Comp'd Extr. (extr. colocynth 16%, aloes 50%, cardam. 5%, resin scammony 14%, & soap 15%), 0.12–0.6 Gm. (2–10 grn.).—Comp'd Pill, B. P., (colocynth 4, aloes 7, scammony resin 7, potass. sulph. 1, oil cloves 1) 0.25–0.5 Gm. (4–8 grn.).—Fl'extr., 0.3–0.6 cc. (5–10 M); *Max. D.*, 1 cc. (15 M) single; 3 cc. (45 M) daily.—Hydro-alcoh. Extr., 0.06–0.2 Gm. (1–3 grn.).—Pill Colocynth & Hyosciam. (comp'd pill coloc. 2; extr. hyosciam. 1), 0.25–0.5 Gm. (4–8 grn.).—Tr. (1:10) 0.5–1 cc. (8–15 M).—**ANTID.**: Opium; stimulants; emetics; tannin.

Colocynthin Merck

Glucoside fr. fruit of *Citrullus Colocynthis*, Schrader. $C_{56}H_{84}O_{23} = 1124.95$ (?).—Yellow powd.—**SOL.**: W., A.—**ACTION**: Cathartic (not drastic & toxic, as the extr.).—**USES**: Purgat.—

DOSE: 0.01–0.03 Gm. ($\frac{1}{16}$ – $\frac{1}{2}$ grn.).—**INJ.**: 0.01 Gm. ($\frac{1}{32}$ grn.). Rectal, 0.25–1 cc. (4–15 M) of a 4% solut. in eq. pts G. & A.

Colocynthin (Resinoid)

Fr. alcoh. tinct. colocynth. by evap.—Choc.-color. powd.—**SOL.**: A.—**ACTION**: Cathartic.—**USES**: Purg.—**DOSE**: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).

COLOGNE SPIRITS—see Alcohol, Deodorized

COLOGNE YELLOW—see Lead Chromate

COLOMBO—see Calumba

COLOPHONY—see Rosin

Coltsfoot—N.F. V; B.P.C.; Fr. Cod.

Coughwort.—Dried leaves (flowers also, B.P.C.) of *Tussilago Farfara*, L., Compositæ.—**HABIT.**: Northern Europe & Asia; natur. in North-eastern U. S.—**CONSTIT.**: *Flowers*: Bitter glucoside; pectin; tannin.—*Lvs*: Pectin; bitter glucoside; tannin; volat. oil; resin; saponin; wax; caoutchouc.—**ACTION**: Emoll.; Demulc.; Tonic; Errhine.—**USES**: *Flowers* & *Lvs*: In bronchial catarrhs, coughs, colds, &c., in form of tea.—*Extern.*, in poultice.—**DOSE**: *Flowers*: Teacupful of 1:16 decoct.—*Lvs*: Aver. dose 4 Gm. (1 dr.).—Fl'extr. 2–4 cc. (30–60 M).

Columbin

Bitter prin. fr. root of *Jateorrhiza Calumba*.— $C_{28}H_{30}O_9 = 510.38$.—Yellow, cryst. powd.—**SOL.**: A., C., E.; v. sltly W.—**MELT.**: 182° C.—**ACTION**: Bitter Tonic.—**USES**: Nervous dyspep. & debil.—**DOSE**: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).

Columbite—Mineral

Niobite.—**OCCUR.**: North America; Australia; Finland; Greenland; Scandinavia.—**COMPOS.**: $([NbTa]O_3)_2Fe$.—**CRYST. SYST.**: Rhomb.—**LUSTER**: Bright submet. to almost resin.—**COLOR**: Black, often iridescent, rarely brown.—**STREAK**: Dark reddish-brown to black.—**HARDN.**: 6.—**SP. GR.**: 5.3–7.3.—**USES**: Prep. columbium comp'ds.

Columbium

Niobium.—Cb = 93.10; disc. by Hatchett in 1801.—Steel-gray, lustr. metal.—**SOL.**: Warm conc. H_2SO_4 .—**SP. GR.**: 8.4 at 15° C., & 12.7 C. when rolled.—**MELT.**: Abt 1950° C.—Of no technical value as yet.

Columbium Chloride

Columbium (Niobium) Pentachloride.— $CbCl_5 = 270.40$.—Yellowish-wh., v. deliq. cryst. powd.; decomp. in moist air w. evol. of HCl fumes.—**SOL.**: A., conc. HCl.—**MELT.**: 194°.—**BOIL.**: 241°C.—**CAUT.**: Keep well stoppered.

COLUMBIUM (NIOBIUM) PENTACHLORIDE—see Columbium Chloride

COLUMBIUM (NIOBIUM) PENTOXIDE—see (Acid) Columbic Anhydride

Columbium & Potassium Fluoride

$CbOF_3 \cdot 2KF \cdot H_2O = 300.32$.—Wh., lustr. leaflets; fatty to touch.—**SOL.**: Eas. in W.

COLUMBO WOOD—see Coscinium

Comfrey—B.P.C.

Radix Consolidæ; Blackwort; Bruisewort.—Root of Symphytum officinale, L., Boraginaceæ.—HABIT.: Europe; Asia; natur, in U. S.—CONSTIT.: Allantoin (0.6%–0.8%); tannin; pectin; resin; sugar.—ACTION: Astring.; Demulc.; Expector.—USES: Intern., coughs, colds, & pulmon. affec.—Extern., on wounds, sores, ulcers, etc.—DOSE: Fl'extr., 2–4 cc. (30–60 M); decoct. (1:8) 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.).

COMMON ALDER—see *Alnus Serrulata*

COMMON ELDER—see *Sambucus*

CONCHA PRAEPARATA—see Oyster Shell, Prepared

CONCHININE—see Quinidine

CONDOR VINE—see *Condurango*

Conduragin Merck

Glucoside fr. bark of *Condurango*, prob. *Marsdenia Condurango*, Reichenbach filis. (*Gonolobus Condurango*, Triana).—Amorph., yellow powd.; arom. bitter taste.—SOL.: A.; sltly E., W., C.—ACTION: Stomachic; Astring., &c.—USES: Gastric ulcer & cancer, chron. dyspep., &c.—DOSE: 0.006–0.1 Gm. ($\frac{1}{10}$ – $\frac{1}{2}$ grn.) 3 t.p.d.

Condurango—N.F. V; B.P.C.; Fr. Cod.

Condurango; Eagle Vine; Mata-perro; Condor Vine.—Dried bark of *Marsdenia Condurango*, Reichenbach (*Gonolobus Condurango*, Triana, B.P.C.), Asclepiadaceæ.—HABIT.: Ecuador; Peru.—CONSTIT.: Conduragin (a mixt. of glucosides); conduransterin; a toxic resin; also trace of an alkaloid resembling strychnine in action.—USES: Cancer, syphilis, rheum., & gastric round ulcer & gastric carcinoma.—DOSE: 1–4 Gm. (15–60 grn.) in decoct.; aver. dose 4 Gm. (1 dr.).—Liq. extr., 0.6–4 cc. (10–60 M).—Alcoh. extr., 0.2–0.5 Gm. (3–8 grn.).—Tr., 1–4 cc. (15–60 M).

CONE FLOWER—see *Echinacea*

Conessine

Wrightine.— $C_{24}H_{40}N_2 = 356.46$.—Alkaloid fr. barks of *Nerium antidysentericum*, L. (*Wrightia antidysenterica* [zeylanica], R. Br.), & *Holarrhena africana*, A. De C.—Wh. cryst.; bitter taste.—SOL.: A., B., C., E., CS₂; v. sltly in W.—MELT.: Abt 122° C.—ACTION: Astring.; Anthelm.—USES: Dysent. & diar.—INCOMP.: Alkalies, tannic acid, &c.

Conglutin

Veget. casein fr. almonds; 18% N & 0.6% S.—Wh. powd.—SOL.: Weak alkal. soluts. & dil. HCl; sltly W.—The 6% solut. is used in veter. med. in endovenous nutrition.

Congo Red Merck—Reagent

Sodium Benzidindisazobinaphtylaminesulphonate.—($C_6H_4N:NC_{10}H_5NH_2SO_3Na$)₂ = 696.50.—Brownish-red powd.—SOL.: Eas. warm, sltly cold, W., & A.; insol. E.—INDIC. SOLUT.: 0.5 Gm. + 90 cc. W. + 10 cc. A.; of this solut. 2–3 drops suffice f. 100 cc. solut. to be titrated (acids = violet color; alkalies = red color). PH

= 3.0–5.2.—TEST F. SENSITIVENESS: 2 to 3 drops indic. solut. + 100 cc. W. + 1 drop 0.1*N* HCl—red color changed to reddish-violet; add 1 drop 0.1*N* NaOH—red color restored.—USES: Indicator in estimat'g free mineral acids alone or in presence of organic acids or inorganic salts acid to other indicators; titrating hydroxides & carbonates of alkalies & alkaline earths, NH₄OH, aniline, & toluidine; detect'g & estimat'g HCl in gastric contents; detect'g acidity of papers; as addit'n to culture media; also as reagent f. bitter-almond water (*Myrtinaere*), free acids (*Wurster*), & aragonite (*Thugutt*).

Congo Red

Dianil Red R; Cotton Red B, 4B, & C.; Cosmos Red Extra; Direct Red; Sodium Benzidindisazobinaphtylaminesulphonate.—NH₂.NaSO₃.NC₁₀H₅: N.C₆H₄.C₆H₄.N:NC₁₀H₅.NaSO₃.NH₂ = 696.50.—Brownish-red powd.—SOL.: Sltly cold, eas. warm, W., w. reddish-brown color; sltly A., insol. A., C., E., petrol., E.—USES: Dyeing cotton fiery red; the color is rapidly altered by light & air, & is v. sensitive to acids.

Congo Red Paper Merck

Riegel's Paper; Herzberg's Paper.—Wh. paper charged w. Congo red.—USES: Test-paper f. pyridine, free acids (blue color), & f. alkalies (red color); also f. detect. free HCl in gastric juice.

Conhydrine

Oxyconiine; d.2. [α -Oxypropyl] hexahydropyridine. — $\overline{CH_2} \cdot (CH_2)_2 \cdot CH_2 \cdot NH \cdot \overline{CH} \cdot CH_2 \cdot CH(OH)CH_3 = 143.18$.—Alkaloid fr. seeds *Conium maculatum*, L.—Wh. cryst.—SOL.: W., eas. A., C., E.;—MELT.: Abt 121° C.—BOIL.: 224.5° C. at 720 mm.—ACTION: Nar.; Anod.; Antispasmodic; Alter.; Antisep.—DOSE: Statements wanting; lethal dose for rabbits, 0.257 Gm. per kilo of body weight.—CAUT.: Poison!

CONICINE—see *Coniine*

Coniine

Conicine; Cicutine; Dextroalaphpropylpiperidine.— $NH \cdot (CH_2)_4 \cdot \overline{CH} \cdot [(CH_2)_2 \cdot CH_3] = 127.18$.—Alkaloid fr. *Conium maculatum*, L.—Colorl., oily liq.; mousy odor; darkens by age & expos. to light.—SOL.: A., E.; 100 W., B., C., amyl A., acetone.—BOIL.: 165°–170° C.—SP. GR.: 0.848–0.852.—ACTION: Antispasmodic; Antineuralgic.—USES: Antidote to strychnine & tetanus; used mostly as hydrobromide (*q.v.*).—DOSE: 0.001–0.01 Gm. ($\frac{1}{60}$ – $\frac{1}{3}$ grn.) B.P.C.—ANTID.: Emetics, ZnSO₄, or mustard; stomach siphon, tannin (0.3 Gm. [5 grn.] ev. 15 min.); atropine, strychnine (strychn. nitrate 0.01 Gm. [$\frac{1}{3}$ grn.], tr. opium 2 cc. [30 M], water 100 cc. [$3\frac{1}{2}$ fl. oz.], in teaspoonful doses ev. 15 min.); picrotoxin & castor oil, caffeine (or strong tea), & o. stim.; vinegar enemas, ice.—Lethal dose for rabbits 0.037 Gm. per kilo of body weight.—INCOMP.: Albumin; salts of Al, Cu, Fe, Mn, & Zn.—CAUT.: Very poisonous!

CONIINE, ANIMAL—see Pentamethylenediamine

Coniine Hydrobromide Merck—Cryst.

$C_8H_{17}N.HBr = 208.11$.—Colorl. cryst.—SOL.: 2 W., 3 A., C.; insol. E.—ACTION: Antispasm., Antineural., &c.—USES: Tetanus, cardiac asthma, sciatic, & whoop-cough; tinnitus aurium; large doses have been given in tetanus fr. injury.—DOSES: 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.) (0.004–0.015 Gm. [$\frac{1}{16}$ – $\frac{1}{4}$ grn.] B.P.C.), 3–5 t.p.d.; childr., 0.0001–0.001 Gm. ($\frac{1}{600}$ – $\frac{1}{60}$ grn.) 2–4 t.p.d.—*Subcut.*, 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.).—MAX. D.: 0.01 Gm. ($\frac{1}{30}$ grn.), single, only in traumatic tetanus; otherwise 0.005 Gm. ($\frac{1}{12}$ grn.) single; 0.015 Gm. ($\frac{1}{4}$ grn.) p.d.—ANTID. & INCOMP.: As of coniine.

Coniine Hydrochloride Merck

Coniine Muriate.— $C_8H_{17}N.HCl = 163.65$.—Wh. cryst.—SOL.: Eas. W., A., C.—USES, DOSES, ETC.: As of coniine hydrobromide & alkaloid.

CONIINE MURIATE—see Coniine Hydrochloride

Conium Fruit—N.F. V; B.P.C.; Fr. Cod.

Hemlock; Poison Hemlock; Spotted Hemlock; Poison Parsley; Spotted Cowbane.—Full-grown, but unripe, carefully dried fruit of *Conium maculatum*, L., Umbelliferae.—HABIT.: Europe; Asia; natur. in U. S.—CONSTIT.: Coniine (not less than 0.5%, N.F.; up to 2.77%, B.P.C.); conhydrine; pseudoconhydrine; methylconiine; ethylpiperidine; volat. oil; fixed oil; conic (conic) acid.—ACTION: Sedat.; Narcot.; Anodyne; Soporific; Antispasm.; Anaphrodisiac.—USES: *Intern.*, in maniacal excitem., whoop-cough, & chorea.—*Extern.*, in analgesic cataplasms & oint. in neural., rectal diseases, & pruritus.—*Techn.*, in manuf. of coniine, &c.—DOSES: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.2 Gm. (3 grn.).—Extr., 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—Fl'dextr., 0.2–0.3 cc. (3–5 M), caut. incr. to 0.6 cc. (10 M) or more.—Tr. (1:5), 2–4 cc. (30–60 M).—ANTID.: Tannin; astringents; strychnine; picrotoxin; emetics; brandy; artif. respiration; warmth; coffee.

do. Leaves—B.P.C.

SYNONYMS, HABIT., & CONSTIT.: As of conium fruit.—ACTION: Sedat.; Narcot.; Anodyne; Soporific.; Antispasm.; Anaphrodisiac.—USES: *Intern.*, spasms, cough irritation, scrofula, maniacal excitem., whoop-cough, & chorea.—*Extern.*, in neural., rectal diseases, & pruritus (in form of oint.), & in eye lotions.—*Techn.*, in manuf. of coniine.—DOSE: 0.06–0.3 Gm. (1–5 grn.); 0.12–0.5 Gm. (2–8 grn.), B.P.C.—Extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—Extr. (fr. inspis. juice), 0.06–0.25 Gm. (1–4 grn.); Max. D. 0.2–0.6 Gm. (3–10 grn.).—Fl'dextr., 0.12–0.3 cc. (2–5 M).—Juice, 4–8 cc. (60–120 M).—Tr. (1:5), 0.3–1 cc. (5–15 M).—ANTID.: As of conium fruit.

"CONSTANT" WHITE—see Barium Sulphate

CONSUMPTIVE'S WEED—see Eriodictyon

Convallamarin Merck

$C_{23}H_{44}O_{12} = 512.47$.—Glucoside fr. *Convallaria majalis*, L.—Yellowish, amorph., bitter

powd.—SOL.: W.; dil. A.; sltly E.; insol. C., amyl A., B.P.C.—ACTION: Cardiac Stim., Diuret.—USES: Heart dis., edema, &c.—DOSE: 0.05 Gm. ($\frac{3}{4}$ grn.); 0.01–0.1 Gm. ($\frac{1}{30}$ – $\frac{1}{2}$ grn.) B.P.C.—*Inj.*, 0.005–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{3}$ grn.) sevl t.p.d.—MAX. D.: 0.1 Gm. ($\frac{1}{2}$ grn.), single; 0.3 Gm. (5 grn.), p. day.—ANTID.: Emetics, stomach siphon, wine, camphor, nitrites, atropine.

Convallaria—Flowers—N.F. IV; B.P.C.

Lily-of-the-Valley; May Lily; Park Lily; May Blossom.—Dried flowers of *Convallaria majalis*, L., Liliaceae.—HABIT.: U. S.; Europe; Northern Asia; cultivated in gardens.—CONSTIT.: Convallamarin; convallarin; volat. oil.—ACTION: Cardiac Tonic, like digitalis; Diuret.—USES: Functional & organic affect. of heart, & in cardiac dropsy, & renal affect.—DOSES: 0.3–1 Gm. (5–15 grn.), best in infus.; aver. dose 0.5 Gm. (8 grn.).—Fl'd (Liq.) extr., 0.3–0.6 cc (5–10 M).—Tr. (1:8), 0.3–1.3 cc. (5–20 M)

do. —Root—N.F. V

Dried rhizome & roots of *Convallaria majalis*, L., Liliaceae.—SYNONYMS & HABIT.: As of preced.—CONSTIT.: Volat. oil; convallarin; convallamarin; resin.—ACTION: Diuret.; Cardiac Tonic; Emetic; Cathart.—USES: As of the flowers.—DOSES: 0.3–1 Gm. (5–15 grn.); aver. dose 0.5 Gm. (8 grn.).—Alcoh. extr., 0.06–0.25 Gm. (1–4 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—Tr. (1:5), 0.3–2 cc. (5–30 M).—ANTID.: As of digitalis.

Convallarin Merck

$C_{34}H_{62}O_{11} = 646.67$.—Glucoside fr. *Convallaria majalis*, L.—Yellowish-wh., amorph. powd.; acrid taste.—SOL.: A., sltly W.; insol. E., B.P.C.—ACTION: Lax; no cardiac effect.—USES: Constip.—DOSE: 0.12–0.3 Gm. (2–5 grn.), B.P.C.

Convolvulin

Rhodeoretin.— $C_{31}H_{50}O_{16} = 678.56$ (Spirgatis & Mayer); $C_{34}H_{56}O_{27} = 1177.04$ (Höhnelt).—A resin jalap, the chief constit. of heavy, wh. tubers *Ipomoea Jalapa*, Nuttall.—Yellowish, amorph. masses, or wh. powd.—SOL.: A.; alm. insol. W., absol. E.—MELT.: 150°–155° C.—ACTION: Drastic Cath.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

"CONVOLVULIN"—See Resin Jalap, White, fr. light root

Copaiba—U.S.P. X; B.P.

Balsam Copaiba; Balsam Capivi; Jesuits' Balsam.—Oleoresin fr. South American spec. of *Copaiba* (*Copaifera Lansdorfii*, Desf., & o. spec. of C., B.P.), Leguminosae.—HABIT.: Brazil, Venezuela, Colombia, Amazon valley, & banks of Orinoco.—Transparent, visc., pale-yellow to brownish-yellow liq.; pecul. odor; bitter, acrid, nauseous taste.—SOL.: B., C., E., oils, CS_2 , absol. A., 1 benzin, fixed & volat. oils; partly in 95% A.; insol W.—SP. GR.: 0.940–0.995 at 25° C., U.S.P.; 0.975–0.995 at 15.5° C., B.P.—CONSTIT.: Volat. oil; resin (β -metacopaivic acid, α -metacopaivic acid [in Maracaibo balsam]; copaivic acid, oxycopaivic

acid [in Para balsam]; illurinic acid [in Maracai-bo balsam]; para-copaivic acid [in Para balsam], etc.).—**ACTION:** Stim.; Lax.; Diuret.; Antisep.—**USES:** *Intern.*, gonorr., chron. cyst., chron. dysent., scarlatina, diphth., croup, dropsy, leucorrh., diarrh., hemorrhoids, chron. bronch., psoria., & scabies.—*Extern.*, indol. ulc. & chilbl., etc.; 1%–5% aqu. emuls. (w. a 2% solut. Na_2CO_3) as a urethral inj.; pure or w. oil as embrocation f. scabies in supposit. of 0.5 cc. (8M) ea.; also in inhalations.—*Techn.*, in varnishes, remov. old oil varnish from oil paintings, & manuf. photographic paper.—**DOSE:** 0.6–4 cc. (10–60 M) 2–4 t.p.d. in emuls. w. alkal., in mass w. magnesia, in capsules, or pills. Aver. dose 1 cc. (15 M). Daily, 4–8 cc. (60–120 M).—In **VETER. MED.**, as Urinary Antisep. & Diur.; for horses & cattle 10–30 cc. ($\frac{2}{2}$ –8 fl. dr.); sheep, 5–10 cc. (75–150 M); pigs, 2–4 cc. (30–60 M); cats & dogs, 0.5–1 cc. (8–15 M); also extern. f. mange in 25% alc. solut. & as a vulnerary.

"COPAIBA, EAST INDIAN"—see Balsam Gurjun

Copaiba Mass.—N.F. V

Solidified Copaiba; Pill Copaiba.—Balsam copaiba 94; magnesia 6; water suffic.—**ACTION:** Diur.; Stim.; Antisep.—**USES:** Gonorr., leucorr., & dis. of muc. membr.—**DOSE:** 0.6–2 Gm. (10–30 grn.); aver. dose 1 Gm. (15 grn.).

Copal

Resin Copal; Gum Copal; Animé (soft copal); Kaurie (or Cowrie).—A resin found as a fossil in Zanzibar; or exuding fr. various sp. of *Trachylobium*, *Hymenaea Courbaril*, L., &c., *Casalpinaceae*. Two varieties (hard copals, & soft copals) known.—**HABIT.**: Zanzibar, Mozambique; also S. America, Australia, Philippine Islands, & W. Indies.—Yellowish to yellowish-brown pieces of var. size; conch. fract.; glossy, odorl., & tastel. Hard copals are alm. insol. in usual solvents; soft copals partly solub. in A., C., & glac. acetic acid; both copals after having been fused, are solub. in oil turpentine & linseed oil.—**CONSTIT.**: Zanzibar copal contains 80% trachyloic acid, 4% isotrachyloic acid, 6% resene; & volat. oil. Kaurie copal contains dammaric acid & a resin, dammaran.—**USES:** *Techn.*, in varnishes & cements; also as substitute for amber; manuf. oil-cloths & linoleum.

Copper Merck—Granular, Sheet, Filings, & Shavings

Cu = 63.57.—Reddish, lustr., ductile, mall. metal.—**SOL.**: HNO_3 , & boil. H_2SO_4 ; v. sltly in HCl; attacked by acetic & o. organ. acids; also sol. NH_4OH .—**SP. GR.**: Abt 8.94.—**MELT.**: 1083°C .—**BOIL.**: 2310°C .—**USES:** *Techn.*, manuf. apparatus, vessels; f. electrical conductors; brass, bronze, & o. alloys; electrotypes, engravings, calico printing, etc.; Cu foil also used to purify water cont'g typhoid bacilli (destroyed in less than 4 hrs); a piece $3\frac{1}{2}$ inches square in 1 qt. water f. 6 hrs sufficient.

do. Merck—Reduced, Powd.

Fine powd.; charact. copper color, without luster.—**SOL.**: As preced'g; sometimes w. violent reaction in HNO_3 .

Copper Acetate Merck—Basic—Refined, Powd.

Copper Subacetate; Green Verdigris.— $\text{CuO} \cdot \text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 + 6\text{H}_2\text{O} = 369.30$.—Greenish-blue powd.; faint acetic odor; metal. taste.—**SOL.**: Dil. acids, & NH_4OH ; partly in W., A.—**USES:** *Extern.*, obstinate proliferations & ulcers, syphil., tonsillar angina, condylomata, pannus, chron. blepharitis, etc., as dust.-powd., oint., plaster, partic. f. corns. As insufflation in pulm. tuberc.—*Techn.*, manuf. Schweinfurth green & o. pigments, & insecticides; dyeing & printing fabrics; prepar. gilder's wax in fire gilding; artif. flowers, wall paper; dyeing wool black; as water- or oil-color pigment.—**VETER. MED.** as Ung. Aegyptiacum in proliferations; otherwise as in human med.

Copper Acetate Merck—Normal—C.P.—Cryst.

Cupric, or Neutral, Copper Acetate; Crystallized Verdigris.— $\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 + \text{H}_2\text{O} = 199.65$.—Bluish-green cryst.; metal. taste; acetic-acid odor.—**SOL.**: 8 W., sltly A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Sulphate (SO_3)	0.020%
Alkalies & Earths	0.20%
Iron (Fe)	0.020%

USES: *Chem.*, reag. f. glucose (Barfoed; Campani; Degener; Hinkel; Ledfors; Sjollem), CS_2 (Cusson), rosin (Goris; Hirschsohn; Perrot-Goris), hematoxylin (Lapeyrère), cystin (Mauthner), albumin (Palm), sugar (Sjollem), & resins & terpenes (Unverdorben); also f. H_2S & artif. wine colors.—*Medic.*, as Astring.; Mild caustic; Alter., &c., *intern.*, in tubercul., scrofula, various skin dis., epilepsy, chlorosis, &c.; *extern.*, as aqu. 0.4%–1% solut. in gonorr.; 0.1%–0.5% solut. in conjunctiv., &c.; 1%–4% oint. in lupus.—The *techn.* grade is used as a mordant; in enameling miniatures; manuf. Schweinfurth green; insecticide.—**DOSE:** 0.006–0.03 Gm. ($\frac{1}{10}$ – $\frac{1}{2}$ grn.).—**MAX. D.**: 0.2 Gm. (3 grn.) single; 0.36 Gm. (6 grn.) p.d.—Subcut. in tubercul. 0.01 Gm. ($\frac{1}{4}$ grn.) in 1 cc. (15 M) W.—**ANTID.**: For all Cu salts whether sol. in W. or not: Encourage vomiting; stomach siphon, then white of egg freely, charcoal, iron filings, magnesia, & pure potass. ferrocyanide; milk & fatty acids must be avoided.—**CAUT.**: Keep well stoppered. Poison!

Copper Acetate Ammoniated

Ammonio-cupric Acetate.— $\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{NH}_3 = 215.70$.—Violet-blue cryst.—**SOL.**: W. on add'g a few drops acetic acid or NH_4OH ; insol. A.

Copper Acetoarsenite

Schweinfurth, Imperial, Vienna, Parrot, or Paris, Green.— $3\text{CuAs}_2\text{O}_4 \cdot \text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 = 1014.11$.—By boil. verdigris w. As_2O_3 .—Emerald-green powd.—**INSOL. W.**—**USES:** *Techn.*, as pigment, partic. for ships & submarine work; insecticide; wood preservative.

"COPPER ALBUMINATE"—see Copper Albuminated

Copper Albuminated

"Copper Albuminate."—Dark-green scales.—
SOL.: In dil. acids & alkalies.

Copper Alginate

Germicide & tonic.—USES: Anemia & pernicious anemia.—DOSE: 0.0025–0.01 Gm. ($\frac{1}{24}$ – $\frac{1}{6}$ grn.).

COPPER ALUM—see Copper Aluminated

Copper Aluminated Merck—Powd., or Plates

Copper Alum; Eye Stone; Lapis Divinus.—Made f. abt 34% potass. alum, abt 32% CuSO_4 , abt 32% KNO_3 , & abt 2% camphor.—Light-green powd., lumps, or plates.—SOL.: W.—ACTION: Mild Caustic; Astring.—USES: In ophthalmia, conjunctivitis, blepharitis, corneal ulcers, etc., as 0.2%–0.6% solut.; otherwise also as powd. (1:2–5 sugar).

do. —Sticks

Bluish-green pencils.—SOL.: W.—USES: Check granulations; mild caustic.

Copper Amalgam

Hard, brown leaflets.—Abt 24% Cu, & 74% Hg.—SOL.: HNO_3 .—USES: Dental cements.

Copper Amidoacetate

Glycocoll-Copper.— $\text{Cu}(\text{NH}_2\cdot\text{CH}_2\text{COO})_2\cdot\text{H}_2\text{O} = 229.69$.—Blue, cryst. powd.—SOL.: W.; eas. dil. acids, NH_4OH ; stlty A.—USES: *Extern.*, in chancroids, phimosi, & buboes, in ointm. (1–2:100, w. tragacanth 3, & A. 5; or 1–2 Gm. w. 10 cc. W. + 40 Gm. G. + 50 Gm. bolus alba; or, 1–2 Gm. + 10 cc. W. + 90 Gm. starch glycerite).

Copper Arsenate Merck

Compos. variable.—Light-blue powd.; cont. abt 29% As, & 33%–34% Cu.—SOL.: Dil. acids, NH_4OH ; insol. W., A.—ACTION: Alter.—USES: Syph.—DOSE: 0.002–0.008 Gm. ($\frac{1}{30}$ – $\frac{1}{8}$ grn.).

Copper Arsenite Merck

Scheele's, Mineral, or Swedish, Green.—Some-what variable composition.—Yellowish-green powd.; 35%–38% Cu, & 32%–35% As.—SOL.: Dil. acids; insol. W., A.—ACTION: Intest. Antisep., Antispasm., & Sed.—USES: Cholera morbus, cholera infantum, typhoid; Asiatic cholera & intest. affect.; dysent.; anemia, chlorosis, whoop, cough, dysmenor., &c.—*Techn.*, as base f. various green copper pigments; insecticide.—DOSES: Ordinarily 0.0006–0.0025 Gm. ($\frac{1}{100}$ – $\frac{1}{25}$ grn.); in anemia & chlorosis, 0.0012–0.0025 Gm. ($\frac{1}{50}$ – $\frac{1}{25}$ grn.) 3 t.p.d.; in cholera very small, frequent doses are recom., e.g., at first ev. 10 min. 1 teasp. of a mixt. cont. 0.0006 Gm. in 120 cc. ($\frac{1}{100}$ grn. in 4 fl. oz.), then 1 teasp. ev. hr.—MAX. D.: Calculated on As content, 0.01 Gm. ($\frac{1}{6}$ grn.) single; 0.02 Gm. ($\frac{1}{3}$ grn.) p.d.

Copper Benzoate—Cupric

$\text{Cu}(\text{C}_6\text{H}_5\text{COO})_2 + 2\text{H}_2\text{O} = 341.75$.—Light-blue cryst. powd.—SOL.: Stlty W., A.; eas. dil. acids w. separ. of benzoic acid.

COPPER BICHLORIDE—see Copper Chloride, Cupric

COPPER BICHROMATE—see Copper Dichromate

COPPER BLUE—see Copper Carbonate, Blue

Copper Borate—Cupric

Compos. variable.—Blue, cryst. powd.—SOL.: Dil. acids; stlty A.; insol. W.—USES: *Techn.*, oil pigment, & painting on porcelain; insecticide, partic. f. wheat rust.

Copper Bromide Merck—Cupric—C.P.

$\text{CuBr}_2 = 223.41$.—Alm. black, iodine-like, deliq. crystals or cryst. powd.—SOL.: Eas. W., A., acetone.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.01%
Alkali Salts	0.20%
Iron (Fe)	0.02%

USES: As intensifier in photog.; to replace I by Br in organ. synthesis.

Copper Butyrate—Cupric

$\text{Cu}(\text{C}_4\text{H}_7\text{O}_2)_2 + 2\text{H}_2\text{O} = 273.75$.—Dark-green cryst.; odor of butyric acid.—SOL.: A., E., NH_4OH , dil. acids; v. stlty W.—USES: Test f. volat. oils; turpentine oil (Heppe).

Copper Carbonate Blue

Sesquicupric Carbonate; Artificial Blue Malachite; Azure, Copper, Mineral, Hamburg, Mountain, Verditer, or Bremen, Blue.—Basic copper carbonate of variab. compos.—Blue, fine powd.—SOL.: Dil. acids; insol. W., A.—USES: Pigment, pyrotechn., & paper color; coloring brass blue, & also black.

Copper Carbonate Green Merck—C.P.

Copper Subcarbonate; Basic Cupric Carbonate; Artificial Malachite.—Approx. $\text{CuCO}_3\cdot\text{Cu}(\text{OH})_2 = 221.16$.—Green powd.—SOL.: Acids, NH_4OH , & soluts. of NH_4 salts, & cane sugar; insol. W., A.

MAXIMUM OF IMPURITIES

Substes. Insol. HCl	0.000%
Chloride (Cl)	0.005%
Nitrate (NO_3)	0.005%
Sulphate (SO_3)	0.010%
Alkalies & Earths	0.300%
Iron (Fe)	0.030%

USES: Determ. glucose (Soldaini's method).

do. Merck—Pure

DESCRIPT. & SOL.: As preceding.—USES: *Intern.*, neuralg., & as antid. to phosphorus.—*Extern.*, astring. (in 10%–30% oint. & plasters), & as caustic inst. of CuSO_4 .—*Techn.*, prepar. Soldaini's test solut.—DOSE: 0.2–0.5 Gm. (3–8 grn.) sev'l t.p.d. both in neuralg. & P. poisoning.

do. —Technical

Mineral, Bremen, Brunswick, or Verditer, Green.—Green powd.; 50%–55% Cu.—SOL.: As preced.—USES: Pyrotechny; pigment in paper manuf.; produc'g black color on brass; insecticide.

Copper Chlorate—Cupric—Cryst.

$\text{Cu}(\text{ClO}_3)_2 + 4\text{H}_2\text{O} = 302.55$.—Blue, deliquescent. cryst.—**SOL.**: Eas. W., & A., w. strong acid react.—**MELT.**: Abt 63°C .; decomp. at higher temp. w. evol. of gas, & res. of CuO .—**USES**: Mordant in dyeing & printing fabrics.—**CAUT.**: Keep dry.

Copper Chloride Merck—Cupric—Reagent

Copper Bi- or Dichloride.— $\text{CuCl}_2 + 2\text{H}_2\text{O} = 170.52$.—Green cryst., deliquescent. in moist, & efflorescent. in dry, air.—**SOL.**: Abt 2 W. or A.

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol.	0.000%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.010%
Alkali Salts	0.070%
Arsenic (As)	0.0002%
Iron (Fe)	0.010%

USES: Determ. C in Fe; inst. of FeCl_3 in anal. of Fe cont'g S & P; detect'g gold-plated metal; purifying alloys, espec. fr. As & Sb; reagent f. gelatin (Liesegang).

Copper Chloride Merck—Cupric—C.P.—Cryst.

Copper Bi (or Di-) chloride.— $\text{CuCl}_2 + 2\text{H}_2\text{O} = 170.52$.—Bluish-green, hygroscopic. cryst.—**SOL.**: Abt 2 W., 2 A.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.030%
Nitrate (N_2O_5)	0.010%
Iron (Fe)	0.030%
Substcs Insol. in HCl	0.030%

USES: As of the Reagent, above.

do. Merck—Pure—Cryst.

DESCRIPTION & SOL.: As preceding.—**ACTION**: Antisept.—**USES**: *Intern.*, scrofula, rachitis, dyscrasias.—*Extern.*, 1% aq. solut. on compress. as antisept. in badly healing & purulent wounds, & disinfect. in cholera.—**DOSE**: 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.) sev'l t.p.d.; 0.016–0.13 Gm. ($\frac{1}{4}$ –2 grn.), (Extra Pharm., M.-W.).—**CAUT.**: Keep well stoppered.

do. Merck—Technical

DESCRIPTION & SOL.: As preced'g.—**USES**: Mordant in dyeing & printing fabrics; manuf. sympathetic & indelible ink, fast black (melanin); detect. gold on gilt articles; oxidizer in manuf. aniline dyes; liberating chlorine, & disinfect. in murrain in cattle; manuf. chrome brown; insecticide; deodorizing & desulphurizing petroleum distillates.

Copper Chloride Merck—Cuprous—Reagent

$\text{CuCl} = 99.03$.—Wh., or alm. wh., cryst. powd.—**SOL.**: HCl, NH_4OH ; insol. W.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.100%
Iron (Fe)	0.010%
Alkali & Earths	0.3000%
Cupric Compds (Cu'')	1.600%
Arsenic (As)	0.001%

USES: Gas anal. (Winkler); absorb'g CO , H_3As , H_3Sb & some gaseous hydrocarbons.

Copper Chloride Merck—Cuprous—C.P.

Copper Monochloride.— $\text{CuCl} = 99.03$.—Alm. wh., cryst. powd.—**SOL.**: HCl, NH_4OH ; insol. W., A.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.150%
Alkali & Earths	0.500%
Iron (Fe)	0.020%

USES: As of the Reagent. *Techn.* also f. detect'g varying temperatures due to friction of various parts of machinery; extracting Ag & Ni fr. ores; manuf. O; insecticide.

Copper Chromate Merck

Basic Cupric Chromate.— $\text{CuCrO}_4 \cdot 2\text{CuO} \cdot 2\text{H}_2\text{O} = 374.74$.—Light-brown powd.—**SOL.**: Dil. acids, solut. CrO_3 (forms dichromate), & NH_4OH ; insol. W., A.—**USES**: As mordant in dyeing.

Copper Citrate Merck—Cupric

Cuprocitrol.— $2\text{Cu}_2\text{C}_6\text{H}_4\text{O}_7 + 5\text{H}_2\text{O} = 720.48$.—Bluish-green powd.—**SOL.**: NH_4OH , acids; insol. W.—**ACTION**: Astring.; Antisept.—**USES**: In conjunctivitis & trachoma in 2% solut., or 5%–20% oint. (w. starch glycerite); in powd. w. 90–97 parts sugar; 1:9000 solut. as wash; in 10%–20% pencils.—*Techn.*, as test f. glucose (Luff).

Copper Cyanide Merck—Cuprous

Cupricin.— $\text{Cu}(\text{CN}) = 89.59$.—Wh., or almost wh. powd.—**SOL.**: NH_4OH , KCN, & hot HCl; insol. W., dil. H_2SO_4 , & cold HCl; diss. in HNO_3 , w. decomp.—**USES**: As ointm. & pencils in trachoma & conjunctivitis.—*Techn.*, electroplating copper on iron; manuf. intermediates.

COPPER DICHLORIDE—see Copper Chloride, Cupric

Copper Dichromate—Cupric

Copper Bichromate.— $\text{CuCr}_2\text{O}_7 + 2\text{H}_2\text{O} = 315.60$.—Brown, deliq. cryst.—**SOL.**: W.—**CAUT.**: Keep well stoppered.

COPPER DITHIOCARBONATE } see Copper Xanthogenate
COPPER ETHYLXANTHOGENATE }

Copper Ferrocyanide—Cupric

Hatchett's, or Mahogany, Brown.— $\text{Cu}_2\text{Fe}(\text{CN})_6 = 339.08$ & abt 10 H_2O .—Brownish-red powd.—**SOL.**: KCN solut.; insol. W., A.

Copper Fluoride—Cupric

$\text{CuF}_2 + 2\text{H}_2\text{O} = 137.60$.—Light-blue powd.—**SOL.**: Acids; v. sltly W.

Copper Formate—Cupric

Tubercuprose.— $\text{Cu}(\text{CHO}_2)_2 + 4\text{H}_2\text{O} = 225.66$.—Blue cryst.—**SOL.**: W. v. sltly A.—**USES**: Pulmon. tubercul. by intraven. inj. of 1 cc (15 M) of 0.1% aq. solut. w. a little formic acid added.

COPPER GLANCE—see Chalcocite

COPPER-GLYCOCOLL—see Copper Amidoacetate

COPPER HYDRATE—see Copper Hydroxide

Copper Hydroxide Merck—Cupric—Pure—Powd.

Hydrated Copper Oxide; Copper Hydrate.— $\text{Cu}(\text{OH})_2 = 97.59$; generally cont's some H_2O .—Light-blue powd.—SOL.: Eas. dil. acids; insol. W., A.—USES: *Techn.*, as pigment f. paints, varnishes, paper; manuf. artif. silk; prepar'g Schweitzer's solut.

Copper Iodide Merck—Cuprous

$\text{CuI} = 190.49$.—Brownish-wh. powd.—SOL.: Solut. KCN, $\text{Na}_2\text{S}_2\text{O}_3$, & in NH_4OH ; insol. W., A., or dil. acids.—USES: *Intern.*, emetic.—*Extern.*, in 10% oint.—*Techn.*, w. equal part. HgI_2 & W. f. detect. rise of temperature (machinery bearings, etc.).—DOSE: 0.4–0.5 Gm. (6–8 grn.) as emetic.

Copper Lactate Merck—Cupric

$\text{Cu}(\text{C}_3\text{H}_5\text{O}_3)_2 + 2\text{H}_2\text{O} = 277.71$.—Greenish-blue cryst.—SOL.: W., NH_4OH ; v. sltly A.—USES: As inj. (20% aq. solut.) in strumous & o. buboes.

COPPER MONOCHLORIDE—see Copper Chloride, Cuprous

COPPER MONOXIDE—see Copper Oxide, Black

Copper Nitrate Merck—Cupric—C.P.

$\text{Cu}(\text{NO}_3)_2 + 3\text{H}_2\text{O} = 241.63$.—Blue, prism., deliq. cryst.—SOL.: v. eas. W., A.—MELT.: Abt 115°C .

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.015%
Lead (Pb).....	0.000%

USES: As test f. O. (Christomanos); prepar. light-sensitive papers.

do. Merck—Pure—Cryst., or Gran.

$\text{Cu}(\text{NO}_3)_2 + 6\text{H}_2\text{O} = 295.68$.—Deep-blue, hygrosc. cryst.—SOL.: Eas. A., W.—ACTION: Astring.; Alter.—USES: *Intern.*, syphilis.—*Extern.*, as bandage or brush applic. in 0.5%–1.5% lotions, syphil. ulcers, & in 0.2%–0.4% inj. in gonorrh. & chron. hemorrhages.—*Techn.*, prep. light-sensitive papers f. reproductive processes; manuf. pigments & CO; pyrotechn.; mordant in dyeing & printing fabrics; coloring copper black; electroplating nickel; in agricultural insecticides; manuf. intermediates.

Copper Nitrate Ammoniated

$\text{Cu}(\text{NO}_3)_2 \cdot 4\text{NH}_3 = 255.71$.—Violet-blue cryst.—SOL.: W.; insol. A.

Copper Nitrite—Basic, Cupric

$\text{Cu}(\text{NO}_2)_2 \cdot 3\text{Cu}(\text{OH})_2 = 448.34$.—Green powd.—SOL.: NH_4OH ; also w. decomp. in dil. acids; sltly in W., A.

COPPER NITROFERRICYANIDE, or NITROPRUSSIDE—see Copper Nitroprusside

Copper Nitroprusside Merck

Cupric Nitroprussiate, or Nitroferricyanide.— $\text{CuFe}(\text{CN})_5(\text{NO}) + 2\text{H}_2\text{O} = 315.53$.—Grayish-green, gran. powd., bec. gray on exposure to light.—Insol. W.

Copper Oleate—Cupric

$\text{Cu}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2 = 626.28$.—Greenish-blue mass.—SOL.: E.; insol. W.—ACTION: Parasiticide; Antiseptic; Astringent.—USES: 10%–20% oint. in indol. ulc. & unhealthy granulations, ringworm, warts, corns, & bunions.

Copper Oxalate Merck—Cupric

$\text{CuC}_2\text{O}_4 + \frac{1}{2}\text{H}_2\text{O} = 160.59$.—Light bluish-green powd.—SOL.: Acids, NH_4OH ; insol. W.

Copper Oxide Black Merck—Cupric—Reagent—Powder

$\text{CuO} = 79.57$.—Fine, black, amorph. powd.

MAXIMUM OF IMPURITIES

Acid-insol. Substcs.....	0.020%
Carbon (C).....	0.002%
Chloride (Cl).....	0.002%
Nitrogen Comp'ds (N).....	0.001%
Sulphate (SO_3).....	0.030%
Calcium (Ca).....	0.002%
Substcs not Pptd. by H_2S	0.250%
Water-sol. Substcs.....	0.030%

USES: Ultimate organ. anal.

Copper Oxide Black Merck—Cupric—C.P.—Powd.

Copper Monoxide.— $\text{CuO} = 79.57$.—Fr. $\text{Cu}(\text{NO}_3)_2$ or CuCO_3 by ignit.—Deep-black, amorph., powd. or granules.—SOL.: Acids; in NH_4OH if NH_4Cl present; insol., W., A.

MAXIMUM OF IMPURITIES

Acid-insol. Substcs.....	0.050%
Carbonate (CO_3).....	0.050%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.005%
Sulphate (SO_3).....	0.080%
Substcs not Pptd by H_2S	0.50%

USES: *Chem.*, as of the Reagent, above.

do. Merck—Cupric—C.P.—Gran.

MAXIMUM OF IMPURITIES

Acid-Insol. Matter.....	0.05%
Substcs not Pptd by H_2S	0.50%
Carbon (C).....	0.020%
Chloride (Cl).....	0.005%
Nitrogen Comp'ds (N).....	0.002%
Sulphate (SO_3).....	0.060%

do. Merck—Cupric—C.P.—Wire

Short pieces of wire coated w. CuO .—SOL.: HNO_3 ; partly in H_2SO_4 .

MAXIMUM OF IMPURITIES

Acid-insol. Substcs.....	0.20%
Carbon (C).....	0.00%
Chloride (Cl).....	0.005%
Nitrogen Comp'ds (N).....	0.000%
Sulphate (SO_3).....	0.040%
Calcium (Ca).....	0.001%
Substcs not Pptd by H_2S	0.50%

Copper Oxide Black Merck—Cupric—Pure—Powd.

DESCRIPTION, & SOL.: As of C. P. powd.—ACTION: Teniafuge; Resolvent.—USES: *Intern.*, in tape-worm.—*Extern.*, as 3%–5% oint., in chronic indurated glands & varicose ulcers; also used in goiter, swelling of liver & testes, inflamm. of joints & muscles, corneal opacities, conjunctivitis, bubo, diphth., etc.—*Techn.*, in organ. elementary anal.; making bluish-green glass; color. imitation gems.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) 3 t.p.d., in pills, for 2 weeks. Abstain fr. acid foods. Accord. to Döör, 0.1 Gm. ($1\frac{1}{2}$ grn.) 4 t.p.d. in pills until 3 Gm. (45 grn.) taken, then f. sev'l days thereafter castor oil in the morning; childr. 0.1 Gm. ($1\frac{1}{2}$ grn.) 2 t.p.d.—MAX. D.: 0.5 Gm. (8 grn.) single; 1 Gm. (15 grn.) p.d.—In VETER. MED. in tape worm in dogs in doses of 0.01–0.05 Gm. ($\frac{1}{6}$ – $\frac{3}{4}$ grn.), & sheep in doses of 0.5–1 Gm. (8–15 grn.) 3 t.p.d.; also *extern.* in oint. as astring. & resolv. as in human med.

do. Merck—Granular

Coarse, black granules.—SOL.: As under copper oxide wire.

do. Merck—Technical

Black powd.—SOL.: Acids; in NH_4OH in presence of NH_4Cl ; insol. W.—USES: Producing green & blue colors on glass, faience, porcelain, & stoneware.

COPPER OXIDE, HYDRATED—see Copper Hydroxide

Copper Oxide Red Merck—Cuprous—C.P.

Cu_2O = 143.14.—Dark carmine-red powd.—SOL.: HCl , & in o. dil. acids to form cupric salts & metal. Cu; slowly sol. in HNO_3 & less readily in NH_4OH ; insol. W., A.

MAXIMUM OF IMPURITIES

Water-sol. Impurities.....	0.500%
Acid-insol. Impurities.....	0.05%
Substcs not Pptd by H_2S	0.5%
Carbonate.....	0.05%
Chloride (Cl).....	0.500%
Nitrate (N_2O_5).....	0.005%
Sulphate (SO_3).....	0.015%
Iron (Fe).....	0.280%

do. Merck—Technical

Dark-brown powd.—SOL.: As of preced'g.—USES: Manuf. red glass, red porcelain glaze.

Copper Oxychloride—Cupric

$3\text{CuO} \cdot \text{CuCl}_2 \cdot 3\frac{1}{2}\text{H}_2\text{O}$ = 436.26.—Bluish-green powd.—SOL.: NH_4OH , acids; insol. W.—USES: *Techn.*, as green pigment.

Copper Palmitate—Cupric

$\text{Cu}(\text{C}_{16}\text{H}_{31}\text{O}_2)_2$ = 574.23.—Greenish-blue powd.—SOL.: Sltly A.; insol. W.—MELT.: Abt 115°C .—USES: In paints for ships' bottoms.

COPPER PHENOLSULPHONATE—see Copper Sulphocarbolate

Copper Phosphate Merck—Cupric

$\text{Cu}_3(\text{PO}_4)_2 \cdot 3\text{H}_2\text{O}$ = 434.84.—Light-blue powd.—SOL.: NH_4OH , acids; insol. W.—ACTION: Antituberc.—USES: Recent tuberc., intern. & subcut.; us'ly used when made fresh by double

decomp. betw. copper acetate & sod. phosphate.—*Techn.*, detect. CO_2 in potable waters.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).

Copper Resinate

Green powd.—SOL.: A.; insol. W.—USES: *Techn.*, in varnishes intended f. preserv. metallic surfaces, & partic. ships' bottoms.

COPPER RHODANIDE—see Copper Sulphocyanate

Copper Salicylate—Cupric

$\text{Cu}(\text{C}_7\text{H}_5\text{O}_3)_2 + 4\text{H}_2\text{O}$ = 409.78.—Bluish-green. cryst. need.—SOL.: W., A., NH_4OH ; decomp. by acids w. pptn of salicylic acid.

Copper Selenate—Cupric

$\text{CuSeO}_4 \cdot 5\text{H}_2\text{O}$ = 296.85.—Light-blue cryst.—SOL.: W., acids, NH_4OH ; insol. A.

COPPER SILICIDE—see Silicon-Copper

Copper Silicofluoride—Cupric

CuSiF_6 = 205.67 + 4 to $6\text{H}_2\text{O}$.—Blue cryst.—SOL.: W.—USES: *Techn.*, dyeing & hardening white marble, & prepar. the "bouillie beaujolaise" f. treating the "white disease" of vines, caused by the Oidium.

Copper Stearate—Cupric

$\text{Cu}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$ = 630.31.—Light-blue, amorph. powd.—SOL.: B., C., turpentine oil; insol. W.—MELT.: Abt 170°C .—USES: In paints f. ships' bottoms.

COPPER SUBACETATE—see Copper Acetate, Basic

COPPER SUBCARBONATE—see Copper Carbonate, Green

Copper Sulphate Merck—Reagent—Cryst.

$\text{CuSO}_4 + 5\text{H}_2\text{O}$ = 249.71.—Blue transp. cryst., or small granules.—SOL.: Abt 3 W. (solut. acid to litmus); alm. insol. A.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Chloride (Cl).....	Abt 0.001%
Alkali Salts & Earths.....	0.100%
Iron (Fe).....	0.010%
Nickel (Ni).....	Abt 0.01%

USES: Detect'g & determ'g reduc'g sugars; detect'g uric acid, xanthine, bile pigments; determ'g urobilin in urine; estimat'g sod. hydrosulphite; reagent f. glucose (Bang); Benedict; Bertrand; Bowmans; Buchner; Carrez, Criswell; Eiger; Fehling; Fillingier; Frommherz; Gaud; Gräber; Guignet; Hager; Haussmann; Horsley; Kumagawa; Lehmann; Löwe; Maridet, Mayezima; Monnier; Moritz; Ost; Otto; Pellet; Peska; Pollitis; Purdy; Rosenthaler; Rossel; Sahli; Salkowski; Salm; Schmiedeberg; Schreiber; Shieb; Sjollem; Sonnerat; Soxhlet; Trommer; Violette; & Wolff), urea (Bloxam), wine coloring matters (Böttger), albumin (Brücke; Gautier; Gnezda), HCN (Buignet; Lassaigne; Preyer; Schönbein-Pagenstecher; Thiery; Weehuizen), picric acid (Christel; Lea), NH_3 (Cockroft), SCN (Colasanti), cupreine (Denigès), morphine (Denigès; Lindo), salvarsan (Denigès-Labat), pancreas function (Ehrmann), resorcinol (Girard), peptone (Gorup-Besanez; Posner), aloes (Hirsch-

sohn; Klunge), quinine (Hirschsohn; Jaworowski), acetylene (Ilosvay), alkaloids (Jaworowski), mineral acids (Kieffer), benzin (Klein), adrenalin (Krull), tannin (Lutz), pepsin (Palier), levulose (Pieraerts), indican (Salkowski), salicylic acid (Schulz; Vitali), yeast extracts (Searle), acetone (Sternberg), P (Straub), cystein (Suter), naphthols (Volcy-Boucher), & fats (Wagenaar).

Copper Sulphate Merck—C.P.—Cryst., or Gran.

$\text{CuSO}_4 + 5\text{H}_2\text{O} = 249.71$.—Blue transpar. cryst., or granules; slowly effloresc. in dry air.—**SOL.**: Abt 3 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Chloride (Cl).....	0.002%
Alkali Salts & Earths.....	0.25%
Iron (Fe).....	0.020%

USES: As of the Reagent, above.

do. Merck—Anhydrous—C.P.—Powd.

$\text{CuSO}_4 = 159.63$.—Wh. or grayish-wh. powd.; cont. at least 97% CuSO_4 .—**SOL.**: W.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Chloride (Cl).....	0.002%
Alkalies & Earths.....	0.3%
Iron (Fe).....	0.020%

do. Merck—U.S.P. X—Cryst. or Gran.

$\text{CuSO}_4 + 5\text{H}_2\text{O} = 249.71$.—Deep blue cryst. or granules; strongly metal., styptic taste.—**SOL.**: 2.5 W., 500 A., & 2.8 G. at 25° C. & in 0.5 boil. W., U.S.P. (3.5 W., v. sol. G., alm. insol. A., at 15.5° C., B.P.).—**ACTION**: Eschar.; Styptic; Astring.; Emetic; Alter.; Nerve; &c.—**USES**: *Intern.*, chronic diarrh. w. ulc., cholera, dysentery, tropical diarrh., passive hemorrhage, epilepsy, chorea, diphth., croup, &c.; also as emetic in croup, whoop-cough, poison'g, etc.—*Extern.*, in 0.2%–0.5% solut., in ulc., gonorr., hyperidrosis; 0.01% solut., as intestinal wash in amebic dysentery; also as 5%–10% oint., & laryngeal insufflations (1:1–10 w. powd. sugar).—*Wet cryst.*: Warts, fungous granul. & edge of callous wounds, chron. ocular blenorhea, conjunctival granulations, condylomata, etc.; bleed'g surfaces.—**DOSE**: Nerv. & alter., 0.01–0.015 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.); *emetic*, 0.12–0.3 Gm. (2–5 grn.); aver. dose as emetic 0.25 Gm. (4 grn.).—**MAX. D.**: 0.5 Gm. (8 grn.) single, 1 Gm. (15 grn.) p.d.—**VETER. MED.**: *Intern.*, as teniafuge & emetic; *extern.*, in neoplasms, cancer of the hoof, abscess of the frog, mange, herpes tonsurans, etc. Doses f. horses 4–12 Gm. (1–3 dr.); cattle 1.5–7.5 Gm. (23–115 grn.); sheep & goats 0.4–1 Gm. (6–15 grn.); dogs 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.).—**INCOMP.**: Alkalies; arsenides; iodides; lead acetate; lime-water; HgCl_2 ; phosphates; AgNO_3 ; sodium borate; vegetable infusions & tinctures.—**ANTID.**: As of copper acetate.

do. Merck—U.S.P. X, Powd.

Bluish-wh. powd.—**SOL.** & **USES**: As preceding.

do. Merck—Technical—Cryst., 98%–100%

Blue, Roman, or Salzburg, Vitriol.—**USES**: *Techn.*, in dyeing cotton & silk; manuf. green & blue pigments; in galvanoplasty for plating w. Cu & other metals galvanically; copper soap; ink for marking tin; hair dye; insecticide mixtures (bouillies bordelaise, bourguignonne, dauphinoise) for treating the "white disease" of vines caused by the Oidium; preserv. hides & railway ties; tanning leather; electric batteries; preserv'g wood; process engraving; destroying algæ, etc.; treating foot rot in sheep.—**CAUT.**: Poison!

do. Merck—Technical—Powd.

do. Merck—Technical—Dried, Powd.

$\text{CuSO}_4 + \text{H}_2\text{O} = 177.65$.—Alm. wh., hygrosc. powd.—**SOL.**: W.; insol. A.—**CAUT.**: Keep absolutely dry.

do. —Pencils, Turned; also Mounted in Wood

Blue, cone-pointed pencils.—**ACTION**: Caustic, Styp.—**USES**: Caustic; for unhealthy granul.; also dentistry.

Copper Sulphate—Basic

Variable compos.—Blue powd.—**SOL.**: Acids, & NH_4OH ; insol. W.

Copper Sulphate Ammoniated

Ammonio-cupric Sulphate; "Copper and Ammonium Sulphate."— $\text{CuSO}_4 \cdot 4\text{NH}_3 + \text{H}_2\text{O} = 245.77$.—By diss. CuSO_4 in NH_4OH & precip. w. A.—Dark blue, cryst. powd.—**SOL.**: W.; insol. A.—**ACTION**: Antispasm.; Antisep.; Astring.—**USES**: *Intern.*, epilepsy, trigem. neuralg., cramps, asthma, syph., hyst., chorea.—*Extern.*, as 0.2%–1% solut. or oint. in chronic inflam. of eye, malignant ulcers, gonorrh., leucorrh., gleet, &c.—*Techn.*, as test f. As_2O_3 ; in calico printing, manuf. copper arsenate, & as insecticide f. Peronospora fungus.—**DOSE**: 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.) 3 or 4 t.p.d., w. tr. opium, after meals.—**MAX. D.**: 0.1 Gm. ($1\frac{1}{2}$ grn.) single; 0.4 Gm. (7 grn.) p.d.

Copper Sulphide—Cupric—Wet Process

$\text{CuS} = 95.63$.—Black powd.; usually cont's some W. of hydration; readily oxidizes to sulphate on expos. to air & moisture.—**SOL.**: HNO_3 hot conc. HCl , H_2SO_4 , & in solut. KCN; insol. W.—**USES**: *Techn.*, as protective paint f. ships' bottoms; dyeing wool, & dyeing w. aniline black.

do. —Cuprous—Fused, Granular, or Powd.

$\text{Cu}_2\text{S} = 159.20$.—Grayish-black, lustr. powd., or granules.—**SOL.**: HNO_3 ; insol. W., or dil. acids.

Copper Sulphite—Cuprous

$\text{Cu}_2\text{SO}_3 + \text{H}_2\text{O} = 225.22$.—Reddish-brown, cryst. powd.—**SOL.**: With decomp. in HCl ; slowly in NH_4OH ; insol. W.

Copper Sulphocarbonate Merck

Copper Phenolsulphonate.— $\text{Cu}(\text{C}_6\text{H}_5\text{SO}_4)_2 + 6\text{H}_2\text{O} = 517.93$; occurs also w. $8\text{H}_2\text{O}$.—Blue cryst.—**SOL.**: W., A.—**USES**: Diar. & choleraic dis.—**DOSE**: 0.0025 Gm. ($\frac{1}{24}$ grn.) ev. hr.

Copper Sulphocyanate—Cuprous

Copper Sulphocyanide, Thiocyanate, or Rhodanide.— $\text{CuSCN} = 121.65$.—Yellowish-wh. powd.— Sol. : NH_4OH ; insol. W. , A. ; diss. in conc. HNO_3 or H_2SO_4 , & also in HCl .— USES : Printing cotton goods w. aniline black; w. As_2O_3 & mercury salts as paint f. ships' bottoms.

COPPER SULPHOCYANIDE—see Copper Sulphocyanate

Copper Tannate—Cupric

Composition variable.—Brown powd.— Sol. : NH_4OH ; insol. W.

Copper Tartrate—Cupric

$\text{CuC}_4\text{H}_4\text{O}_8 = 211.62$.—Light-blue powd.— Sol. : Acids & alkalies; v. sltly W. .— USES : Test f. glucose (Lagrange).

COPPER THIOCYANATE—see Copper Sulphocyanate

Copper Tungstate—Normal, Cupric

Cupric Wolframate.— $\text{CuWO}_4 + 2\text{H}_2\text{O} = 347.60$.—Light-green powd.— Sol. : NH_4OH ; sltly acetic acid; insol. W.

COPPER WOLFRAMATE—see Copper Tungstate

Copper Xanthogenate

Copper Dithiocarbonate, or Ethylxanthogenate.— $\text{Cu}(\text{C}_2\text{H}_5\text{OS}_2) = 184.75$.—Yellowish-brown powd.— Sol. : v. sltly A. , conc. NH_4OH ; insol. W. , CS_2 .— USES : Determ. Cu & CS_2 .

Copper & Ammonium Chloride Merck—Reagent

Ammonium Cupric Chloride.— $\text{CuCl}_2 \cdot 2\text{NH}_4\text{Cl} + 2\text{H}_2\text{O} = 277.52$.—Blue cryst.— Sol. : Abt 4 W. (solut. sltly acid to litmus); also in A.

MAXIMUM OF IMPURITIES

Insol. Matter	0.000%
Free Acids	0.000%
Nitrate (N_2O_5)	0.003%
Sulphate (SO_3)	0.005%
Alkali Earths	0.10%
Iron (Fe)	0.010%

USES : Determ'g C in Fe & steel.

Copper & Ammonium Chloride Merck—C.P.

Ammonium Cupric Chloride.— $\text{CuCl}_2 \cdot 2\text{NH}_4\text{Cl} + 2\text{H}_2\text{O} = 277.52$.—Bluish-green cryst.— Sol. : Abt 4 W. , A.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.010%
Alkali Earths	0.250%
Iron (Fe)	0.020%

USES : As of the Reagent, above.

do. Merck—Gran.

$\text{DESCRIPT. \& SOL.}$: As preceding.— USES : A solut. of 5.4 Gm. copper chloride & 50 Gm. ammon. chloride in 195 cc. water was formerly used in scrofula, rachitis, syph., gonorrh., epilep., whoop-cough, etc., intern., in doses of 5–15 drops sev'l t.p.d., & also extern.

COPPER & AMMONIUM SULPHATE—see COPPER Sulphate, Ammoniated

Copper & Potassium Chloride—C.P.

Potassio-Cupric Chloride.— $\text{CuCl}_2 \cdot 2\text{KCl} + 2\text{H}_2\text{O} = 319.64$.—Bluish-green cryst.— Sol. : W.

MAXIMUM OF IMPURITIES

Free Acid (as HCl)	0.00%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.010%
Iron (Fe)	0.010%

do. Merck—Cryst.

$\text{DESCRIPT. \& SOL.}$: As preced'g.

Copper & Potassium Cyanide

Potassio-Cuprous Cyanide.—Compos. variable; approx. $\text{K}[\text{Cu}(\text{CN})_2] = 154.70$.—Alm. wh. cryst. powd.— Sol. : W. .— USES : Electroplating Cu & brass.

Copper & Potassium Ferrocyanide

Potassio-Cupric Ferrocyanide.—Brownish-red powd.—Insol. W. .— USES : As pigment.

Copper & Potassium Tartrate

Potassio-Cupric Tartrate.—Variable compos.—Blue scales.— Sol. : W. ; insol. A.

Copper & Sodium Chloride

Sodio-Cupric Chloride.— $\text{CuCl}_2 \cdot 2\text{NaCl} = 251.41$.—Light-green cryst.— Sol. : W.

COPPERAS—see Iron Sulphate

Coptis—N.F. V

Goldthread.—Dried plant of *Coptis trifolia*, Salisbury, Ranunculaceæ.— HABIT. : U. S. , south to Maryland & Minnesota; Canada.— CONSTIT. : Berberine; coptine.— USES : Tonic in gen'l debil.; also applied locally in ulcer. mouth.— DOSE : Aver., 2 Gm. (30 grn.).— Fl' dextr. , 0.6–2 cc. (10–30 M).

CORALLIN—see Acid Rosolic

Corallin—Water-soluble

Sodium Rosolate.—Sodium salt of commercial rosolic acid (Aurin).—Brown lumps; metallic luster.— Sol. : A. , W. .— USES : Dyeing wool & silk, shades between magenta and cochineal. Indic. (alkalies = violet-red; acid = yellow).

Coramine

Pyridine- β -carboxylic acid Diethylamide (25% solut.).— $\text{NC}_5\text{H}_4\text{CON}(\text{C}_2\text{H}_5)_2 = 178.18$.—The pure substce is a yellow, alm. odorl. liq.; the 25% solut. is colorl.— Misc. : W. all proport.— ACTION : Analeptic; Circulatory & Respir. Stim.— USES : Cardiac insuff., collapse, arteriosclerosis, bronchial asthma, etc., inst. of camphor or lobeline.— DOSE : 1–2 cc. (15–30 M) intern., subcut., intramusc., or intraven.

CORDOL—see Tribromsalol

Coriamyrtin

$\text{C}_{30}\text{H}_{36}\text{O}_{10} = 556.44$.—Glucoside fr. lvs & fruit of *Coriaria myrtifolia*, L.—Colorl. cryst.— Sol. : W. , A. , C. , E. .— MELT. : Abt 220°C. .— ACTION : Analeptic.— USES : Collapse, especially due to debilitated respiratory & vascular centers.— MAX. D. : 0.001 Gm. ($1/60$ grn.).

Coriander—N.F. V; B.P.; Fr. Cod.

Dried ripe fruit of *Coriandrum sativum*, L., Umbelliferae.—HABIT.: Asia; Europe.—CONSTIT.: Volat. (abt 1%) & fixed oils; malic acid; tannin; mucilage.—USES: Carmin.; aromat.; Stim.; Flavoring.—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose 0.5 Gm. (8 grn.).

CORKWOOD ELM—see *Duboisia*

CORN BRAND } see *Ustilago*
CORN ERGOT }

CORN SILK—see *Zea*

CORN SMUT—see *Ustilago*

CORN SUGAR—see *Dextrose*

Cornin (Eclectic)

Powd. resin, extr. fr. *Cornus florida*, L.—Brown, bitter powd.—SOL.: A.—ACTION: Antiperiodic; Tonic; Astring.—USES: Intermitt. fever.—DOSE: 0.12–0.3 Gm. (2–5 grn.).

Cornus—N.F. V

Dogwood; Flowering Dogwood.—Dried root bark of *Cornus florida*, L., Cornaceae.—HABIT.: Eastern U. S. & Ontario.—CONSTIT.: Cornine.—ACTION: Astring.; Tonic; Antiper.—USES: Diarrhea, dysentery, dyspep., malaria, &c.—DOSE: Aver., 2 Gm. (30 grn.).—Extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

Cornus Circinata

Green Osier; Round-leaved Dogwood.—Bark of *Cornus circinata*, L'Héritier, Cornaceae.—HABIT.: Northeastern U. S. & Canada.—ACTION: Antiper.; Bitter Tonic.—USES: Malar. fev.—DOSE: Fl'dextr., 0.6–4 cc. (10–60 M).

Cornutine

Ergotoxine (B.P.C.); Ecboline; Hydroergotinine.— $C_{35}H_{41}N_5O_8 = 627.54$ (B.P.C.).—Alkaloid fr. ergot. Kobert claims it true active prin. of ergot; Tanret, however, says cornutine is a more or less decomposed ergotinine (*q.v.*).—Amorph., brown powd. (wh. amorph. powd., B.P.C.).—SOL.: Hot A., sltly W.; A. (90%), sltly E., alm. insol. W., but readily sol. in usual organic solvents & in solut. NaOH, B.P.C.—MELT.: 162°–164° C., B.P.C.—ACTION: Internal Hemostatic; Emmen.; Genital Tonic.—USES: In hemorrhage fr. gen.-urin. organs, paralytic spermatorr., enuresis, &c.—DOSE: 0.003–0.01 Gm. ($\frac{1}{20}$ – $\frac{1}{2}$ grn.); accord. to B.P.C., 0.0005–0.0013 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.).—Subcut. & intraven., 0.002–0.008 Gm. ($\frac{1}{30}$ – $\frac{1}{8}$ grn.).

Cornutine Citrate Merck

Brownish-black powd.—SOL.: A.; v. sltly W.—ACTION: Intern. Hemostat.; Emmen.; Genital Tonic.—USES: To promote contractions both before & after childbirth; uterine & genito-urinary hemorrhage; paralytic spermatorrh., &c.—DOSES: *Hemostat.* (urethra, bladder, uterus), 0.002 Gm. ($\frac{1}{30}$ grn.) 5 t.p.d.; in gynecol., 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) p.d.; in paralytic spermatorrh., 0.003 Gm. ($\frac{1}{20}$ grn.) twice daily, per os.—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) p.d.—INJ., subcut. 0.002–0.008 Gm. ($\frac{1}{30}$ – $\frac{1}{8}$ grn.), sterilized, in solut.—In VETER. MED., dogs 0.002–0.01 Gm. ($\frac{1}{30}$ – $\frac{1}{6}$ grn.).

Cornutol

Biologically tested liq. extr. of ergot; 1 part = $2\frac{1}{2}$ parts ergot.—Brownish-red liq.—USES: As of ergot.—DOSE: 0.6–4 cc. (10–60 M).—Subcut., 0.6–2 cc. (10–30 M).

Coronillin

($C_7H_{12}O_5$)_x.—Glucoside fr. seeds of *Coronilla scorpioides*, Koch.—Yellow powd.—SOL.: W., A.—ACTION: Cardiac Tonic & Diur.—USES: Cardiac dropsy & o. cardiac affect., espec. paroxysmal tachycardia, aortal stenosis, & mitral insuff., inst. of digitalis; strengthens pulse, increases secretion urine, & dimin. edema & dyspnea; contraindic. in fatty heart.—DOSE: 0.1 Gm. ($\frac{1}{2}$ grn.).—MAX. D.: 0.6 Gm. (10 grn.) p.d., in 4–6 doses.

Corpus Luteum Merck—Dried

Fr. the Corpus luteum of the cow.—1 part = $5\frac{1}{2}$ parts of the fresh organ.—USES: In various affect. of pregnancy & ovaries (*e.g.*, hyperemesis, nausea, apyphical attacks, palpitation, etc.).—DOSE: 0.05 Gm. ($\frac{1}{4}$ grn.) twice daily.

do. Merck—Tablets, 0.05 Gm. Each

CORROSIVE MERCURY CHLORIDE } see Mercury
 CORROSIVE SUBLIMATE } Bichloride

Corundum—Mineral

COMPOS.: Al_2O_3 .—CRYST. SYST.: Hexag. rhombohedr.—LUSTER: Adamantine to vitr. Occas. shows asterism.—COLOR: Blue; red, yellow, brown, gray, & nearly wh.—STREAK: Uncolored.—FRACT.: Uneven to conch.—HARDN.: 9.—SP. GR.: 3.95–4.10.—USES: As abrasive & polish (as emery); manuf. refractory parts of apparatus & furnaces. Clear colored varieties form gems (sapphire, ruby, oriental emerald, oriental topaz) used as jewelry.

Corydalin (Concentration)

Powd. alcohol. extr. fr. root *Corydalis formosa*, Pursh (Squirrel Corn).—Brown powd.—SOL.: A.—USES: Syph. affect., scrof. & skin dis.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Corydaline

$C_{22}H_{27}NO_4 = 369.33$ (Freund).—Alkaloid fr. root *Corydalis cava*, L. (*C. tuberosa*, De C.).—Colorl. cryst.—SOL.: A., C., E.—MELT.: 135° C.—ACTION: Heart Tonic.—See also Bulbocapnine.

Corydalis—N.F. V

Squirrel Corn; Turkey Corn; Stagger-weed.—Dried tubers of *Bicuculla canadensis*, Millspaugh, & us'y w. portions of *B. Cucullaria*, Millspaugh, Fumariaceae.—HABIT.: Ontario to Kentucky & Missouri.—CONSTIT.: Corydaline; bulbocapnine; corytuberine; corycavine; corybulbine; corydine; fumaric acid; bitter extractive; acid resin, &c.—ACTION: Tonic; Diuret.; Alter.—USES: Dyspep., dropsy, scrofula, & cutan. & syphil. affections.—DOSE: 0.6–2 Gm. (10–30 grn.); aver., 0.6 Gm. (10 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).

Coryfin

Menthol Ethylglycolate.— $\text{CH}_2(\text{O.C}_2\text{H}_5)_2\text{COO}(\text{C}_{10}\text{H}_{19}) = 242.28$.—Colorl., oily liquid; faint menthol odor.—SOL.: A., C., E.; diffic. in W.—BOIL.: Abt 155°C . at 20 mm.—USES: In nasal & pharyngeal catarrhs, headaches, neuralgias; hoarseness.—DOSE: 2–4 drops on a lump of sugar.—APPL.: Locally; avoid contact w. eyes.

CORYNINE HYDROCHLORIDE—see Yohimbine Hydrochloride

Coscinum—B.P.C.

Colombo Wood; False, or Ceylon, Calumba.—Dried stem of *Coscinum fenestratum*, Colebr., Menispermaceæ.—HABIT.: India; Ceylon.—CONSTIT.: Berberine; saponin.—ACTION: Bitter Tonic.—USES: As of calumba, in conc. liq., infus., or tinct.—DOSES: Infus. (1:20), 15–30 cc. ($\frac{1}{2}$ –1 fl. oz.); Conc. Solut. (1:2), 2–4 cc. (30–60 M); Tinct. (1:10), 2–4 cc. (30–60 M).

COSMOLINE—see Petrolatum

COSMOS RED, EXTRA—see Congo Red

Cotarnine

$\text{C}_{12}\text{H}_{15}\text{NO}_4 = 237.19$.—Oxidat. prod. of narcotine.—Colorl. need.—SOL.: E., NH_4OH ; spar. cold W.; more eas. warm W., A.—MELT.: 132° – 135°C . w. decomp.—USES: Chiefly as hydrochloride.

COTARNINE HYDROCHLORIDE—see Stypticin

COTARNINE PHTHALATE—see Styptol

Coto—True

Bark of an undetermined South American tree, probably, however, *Nectandra Coto*, Rusby, Laurineæ; *Drimys Winteri*, var. *granatensis*, has also been credited as being the source.—HABIT.: Bolivia.—CONSTIT.: Cotoin; dicotoin; phenylcumalin; volat. oil; resin; tannin.—ACTION: Astring.; Antisep.; Antisudorific in phthisis; Antirheum.—USES: *Intern.*, in diar. & dysent. of tuberc. & typhoid.—*Extern.*, in rheum., gout, & toothache.—DOSES: 0.3–1 Gm. (5–15 grn.), in powd.—Extr., 0.06–0.2 Gm. (1–3 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—Tr. (1:10), 0.6–1.3 cc. (10–20 M).—See also Paracoto.

COTO, PARA—see Paracoto

Cotoin—True

$\text{C}_6\text{H}_2(\text{OH})_2(\text{OCH}_3)\text{CO.C}_6\text{H}_5 = 244.17$.—Cryst. prin. fr. true coto bark.—Yellowish, cryst. powd.; pungent taste.—SOL.: A., B., C., E., CS_2 , acetone, caustic alkalies & alkali carbonates; v. sltly W.—MELT.: 130° – 131°C .—ACTION: Antidiar.; Antisudor., &c.—USES: Cholera, dysent., diar., phthis., night-sw., &c.—DOSE: 0.06–0.2 Gm. (1–3 grn.) sev'l t.p.d.—Contraind. in intest. hyperemia w. tendency to bleeding.—MAX. D.: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.—See also Paracotoin.

COTOIN, PARA—see Paracotoin

COTTON RED—see Congo Red

COTTON RED 4 B—see Benzopurpurine 4 B

COTTON, WILD—see *Asclepias Syriaca*

Cotton-Root Bark—N.F. V; B.P.

Dried root-bark of one or more of the cultivated spec. of *Gossypium herbaceum*, L., & of o. spec. of G., Malvaceæ.—HABIT.: Asia (India, China, Arabia); Egypt; U. S.; W. Indies; S. America; Australia; Spain, &c.—CONSTIT. Yellow chromogen; pale-yellow resin (abt 8%, B.P.C.); fixed oil; sugar.—ACTION: Emmen.; Oxytocic.—USES: Amenor. & menor.; also inst. of ergot to promote uterine contract., hence used in primary & secondary labor-pain inefficiency, & as a hemostat. in metror. (fibromyoma), &c.—DOSES: 2–4 Gm. (30–60 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.2–0.6 Gm. (3–10 grn.).—Liq. extr., 2–4 cc. (30–60 M); up to 25 cc. (6 fl. dr.) p.d.—Tr. (1:4), 2–4 cc. (30–60 M).

COUCH GRASS—see *Triticum*

COUGHWORT—see *Coltsfoot*

Coumarin Merck—N.F. V; B.P.C.

Cumarin; Tonka-Bean Camphor; Cumaric Anhydride.— $\text{O.CO.C}_6\text{H}_4.\text{CH}:\text{CH} = 146.09$.—Anhydride of orthooxycinnamic acid (*d*-lactone of cumaric acid) occur'g naturally in tonka bean, melilot, & o. plants; artif'ly fr. salicylic aldehyde w. acetic anhydride & sod. acet.—Colorl. cryst.; pleas., fragr. odor; burn. taste.—SOL.: Freely in A., C., E., oils, & spar. cold, more eas. hot, W., N.F. V; (400 cold, 50 boil. W., B.P.C.).—MELT.: 67° – 68°C .—BOIL.: 290° – 291°C .—USES: Flavor f. tobacco & butter; perfumery; "deodorizing" iodoform; lemonade (15 cc. [4 fl. dr.] of a 1:200 alcoh. solut. to a bot.).—A 1:200 solut. is also insecticide.—Abt 65 times the strength of prime Angostura tonka bean.

COUMAROUNA BEAN—see Tonco

COW CLOVER—see *Trifolium*

COWBANE, SPOTTED—see *Conium Fruit*

Cowhage—B.P.C.

Cowage; Cowitch.—Hairs of the pods of *Mucuna (Dolichos, L.) pruriens*, De C., Leguminosæ.—HABIT.: Tropical Africa, America, & Asia.—Straight hairs abt $\frac{1}{8}$ in. (3 mm.) long; brown & glossy; readily penetrate the skin; causing intense itching.—USES: Irrit. (in oint.), Anthelm. (in honey).—DOSE: 0.6–4 Gm. (10–60 grn.) B.P.C.

COWITCH—see Cowhage

COWRIE—see Copal

CRAB ORCHARD SALT—see Salt, Crab Orchard

Crabs' Eyes

Crabstones; Lapis Cancrorum; Oculi (Calculi) Cancrorum.—Concretions found in the stomach, one on each side, of the European crawfish, *Astacus fluviatilis*, Crustacea, Malacostraca.—HABIT.: European rivers.—Inod., insipid bodies; somewh. hemispherical shape; whitish or reddish color; hard & stony consistency & laminated texture.—CONSTIT.: Calcium carbonate & phosphate; animal matter (gelatin).—USES: Antacid like prepared chalk; old remedy for remov. foreign bodies from the eye.—DOSE: 0.6–2.6 Gm. (10–40 grn.).

CRABSTONES—see Crabs' Eyes

CRAMP BARK

CRANBERRY TREE } see Viburnum Opulus

CRANESBILL—see Geranium

CREAM TARTAR—see Potassium Bitartrate

CREAM TARTAR, BORATED OR SOLUBLE—see Potassium Borotartrate

CREASOTE—see Creosote

Creatin

Methylglycocycamine; Methylguanidineacetic Acid; Kreatin.— $\text{NH}:\text{C}(\text{NH}_2)\text{N}(\text{CH}_3)\text{CH}_2\text{COOH}$ = 131.12.—Stimul. principle fr. beef.—Colorl. cryst. powd.—SOL.: W.; alm. insol. A., E.—ACTION: Muscular Stim., in atonic conditions of the general muscular system, of the heart, & of the digest. organs; Diur.—DOSE: 0.1 Gm. (1½ grn.) 4–6 t.p.d.

CREATIN, DEHYDRATED—see Creatinine

Creatinine

Dehydrated Creatin; Kreatinine; Methylglycocycamidine.— $\text{NH}:\text{C}(\text{NH}\cdot\text{CO}\cdot\text{CH}_2(\text{CH}_3)\text{N}$ = 113.10.—Leucomaine fr. urine.—Wh. or yellowish cryst. powd.—SOL.: Eas. W.; v. sltly A.—USES & DOSE: As of creatin.

Creatinine & Zinc Chloride

$\text{ZnCl}_2(\text{C}_4\text{H}_7\text{N}_3\text{O})_2$ = 362.49.—By-product in creatinine manuf.—Colorl. to yellowish crystals.—SOL.: Eas. dil. HCl; sltly in W.

CRELINUM—see Solution Cresol, Saponated

Creolin

Creolin-Pearson.—Mixt. of high-boiling coal-tar oils & phenols rendered emulsifiable w. W. by a special process.—Dark-brown liq.; tar odor.—SOL.: All prop. A., C., E.; sol. in W. (milky emuls. w. much W.).—SP. GR.: 1.040–1.080 at 15° C.—ACTION: Germic.; Deodoriz.; Antisep.—USES: Inst. of phenol (its R.-W. phenol coefficient is 9–10). General disinfectant & deodorant in 1%–3% solut.—Extern., 0.5%–2% solut. for wounds, cuts, ulcers, etc.; surg. operat.; in leucorrhea, cerv. catarrh, gonorr. in women, 4 cc. (1 fl. dr.) to 1 liter (abt 1 quart) of tepid water as douche or applied on tampons; 0.5% solut. to allay itching & irritation in pruritus, eczema, chafing, etc. Where there is suppuration may be applied on compresses, to be changed daily; 1% solut. for disinfection of hands.

do. —Veterinary

USES: Extern., 2% aqu. solut., & 10% oint. w. petrolatum, lard or lanum, in skin dis., as antiseptic f. cuts, ulcers, sores, etc.; as parasiticide, wash coat w. 1%–3% solut.; f. worms in cows & horses, drench of 1 tablesp. to 1 quart of W.; hogs & sheep, 2 teasp. to 1 quart of W. or milk; puppies, 10 drops of solut. (make by adding 1 drop of Creolin to 1 oz. boiled W.) f. each pound wt of dog, dose to be given thrice daily for one day only.

Creosol

Homoguaiacol; Kreosol; Homopyrocatecholmonomethyl Ester.— $\text{C}_6\text{H}_3\cdot\text{CH}_3(\text{OCH}_3)(\text{OH})$ —[1:3:4] = 138.08.—Fr. wood tar by dist'n, or fr. resin guaiac by dry dist'n.—Colorl. to yellowish, strongly refract., arom. liq.—MISC.: A., B., C., E.—SOL.: Sltly W.—BOIL.: 220° C.—SP. GR.: 1.096 at 15° C.—Antisep.

CREOSOTAL = Creosote Carbonate

Creosote Merck—U.S.P. X

Kreosote; Creasote.—Mixt. phenols, chiefly guaiacol, $\text{C}_6\text{H}_3(\text{OCH}_3)\cdot\text{OH}$, & creosol, $\text{C}_6\text{H}_3\cdot\text{OCH}_3\cdot\text{CH}_3\cdot\text{OH}$, obt'd fr wood-tar, U.S.P.; (fr. beech tar, B.P.).—Alm. colorl., or yellowish, oily liq.; charact. smoky odor; caustic, burn. taste.—SOL.: Sltly W., misc. A., E., or oils. U.S.P.; (freely in A. [90%], C., & glacial acetic acid, B.P.; 110 W., B., benzin, & up to 3 G. Sq.—SP. GR.: Not below 1.076 at 25° C., U.S.P.; not below 1.080 at 15.5° C., B.P.—Does not solidif. at –20° C.—BOIL.: Begins to distil abt 200° C. & at least 90% by vol. (75% B.P.) must distil betw. 200°–220° C., U.S.P.—ACTION: Antituberc., Antisep., Antipyr.; Anthelm.—USES: Intern., phth., pneumon., diab. mell., enlarged cervical glands, toothache, vomiting, cholera morbus, diar., dysent., abnorm. gastric & intestin. ferment. processes, &c.—Extern., dil., locally in chilbl., burns, diphth., fetid leucor., fistulous ulcers, &c.; used also in dentistry as addition to arsenical pastes, destroying diseased pulp, & in maxillary necrosis.—DOSE: 0.06–0.3 cc. (1–5 M), incr. grad. to limit of tolerance; aver. dose 0.25 cc. (4 M).—MAX. INITIAL D., 0.3 cc. (5 M) single; 1 cc. (15 M) p.d.—Creosote Mixt. (1:480), 15–30 cc. (4–8 fl. dr.).—VETER. MED., in dysentery, erysipelas, etc., & distemper in dogs; horses 5–10 cc. (75–150 M); cattle 10–15 cc. (2½–4 fl. dr.); sheep, goats, & pigs 1–2 cc. (15–30 M); dogs 0.05–0.3 cc. (¾–5 M).—ANTID.: Emetics, stomach siphon, solub. sulphates, such as Glauber, or Epsom, salt.—INCOMP.: Acacia; albumin; Cu, Fe, Au, & Ag salts; oxidizers.—PURITY TEST: If 1 cc. is gently shaken w. 2 cc. benzin & 2 cc. freshly prep. $\text{Ba}(\text{OH})_2$ T.S., upon separating into 3 distinct layers the upper layer is neither blue nor muddy, U.S.P.—CAUT.: Wherever Creosote is indicated f. intern. medication, Creosote U.S.P. (fr. wood tar) Merck should be dispensed, & under no circumstances should "Creosote fr. Coal Tar" be given unless explicitly so directed. Wood-tar Creosote & Coal-tar Creosote differ v. widely in their action on the human body. Wood-tar Creosote is comparatively harmless; Coal-tar Creosote is decidedly poisonous.—Expose bottle to the light; & avoid severe changes of temperature. Open to air as little as possible.

do. —Beechwood (Hartmann & Hauers) —U.S.P. X—Sp. Gr. 1.078 at 25° C.

Physicians who habitually desire the best possible remedial agents for their patients preferably use CREOSOTE BEECHWOOD (Hartmann & Hauers). This Beechwood Creosote (which may be ordered by the name "Hart-

mann & Hauers" or simply by the initials "H. & H.") exceeds the requirements demanded by the U.S.P. both as to purity & strength. It is always well to specify "H. & H." when prescribing creosote.

Creosote from Coal Tar

Essentially a mixt. of various phenols.—Colorl., oily, clear liquid.—Sp. Gr.: Abt 1.07.—Boil.: 200°–250° C.—CAUT.: This creosote should be used *only extern.* (toothache, chilblains, mouthwash or gargle [1:200 water]; 5%–10% oint., etc.).—*Techn.*, impregn. wood to protect it fr. rot. & fr. worms; also as disinf., insecticide, & germicide.—Wherever Creosote is indicated f. intern. or extern. use, Creosote fr. Wood-tar Merck, or fr. Beechwood, "H. & H." U.S.P., should be dispensed; & under no circumstances should Creosote fr. Coal Tar be given unless explicitly ordered. Wood-tar (& Beechwood) Creosote & Coal-tar Creosote differ v. widely in their action on the human body. Wood-tar (& Beechwood) Creosote is comparatively harmless, while Coal-tar Creosote is decidedly poisonous.

Creosote Benzoate

Yellowish liq.—SOL.: Eas. A., E.—ACTION: Antisep.—USES: Locally, by spray in nose & throat dis.

Creosote Carbonate Merck—U.S.P. X

A mixt. cont'g chiefly guaiacol & creosol carbonates.—Clear, colorl. to yellowish, viscid, oily liq.—SOL.: A., B., C., benzin, oils, & insol. W., U.S.P.; (amyl A., & insol. G. or weak A., B.P.C.).—Sp. Gr.: Not below 1.145 at 25° C., U.S.P.; (1.165–1.168 at 15.5° C., B.P.C.).—ACTION: Antituberc.—USES: As of creosote.—DOSE: 0.3–1.3 Gm. (5–20 grn.) grad. incr. to 5 Gm. (80 grn.) sev'l t.p.d.; aver. dose 1 Gm. (15 grn.), U.S.P.—MAX. D.: 15 Gm. (4 dr.) p.d.—VETER. MED., dysentery in calves, distemper in dogs, etc.; *calves*, 1–2 Gm. (15–30 grn.); *dogs*, 0.5 Gm. (8 grn.) sev'l t.p.d.; *hens*, 0.06–1 Gm. (1–15 grn.).

CREOSOTE OLEATE }
CREOSOTE-OLEIC ESTER } see Oleocreosote

CREOSOTE PHENYLPROPIONATE—see Proposote

Creosote Phosphate

Yellowish, alm. odorl., viscid mass.—SOL.: A.; insol. W.—Sp. Gr.: 1.189.—BOIL.: Abt 235° C. w. decomp.—Is stated to be a non-irritant, non-toxic succedan. f. creosote, & used like latter.—DOSE: 6–8 Gm. (90–120 grn.) p.d.

CREOSOTE PHOSPHITE—see Phosphotal

Creosote Valerate

Eosote.—Colorl. to yellowish liq.—SOL.: v. eas. A., E.; insol. W.—BOIL.: Abt 240° C.—ACTION: Antituberc.; Intest. Disinfect.—USES: As of creosote; also as gastrointest. disinf.—DOSE: 0.2–0.6 cc. (3–10 M) 3 t.p.d. in caps. or milk.

m-Cresalol

Metacresalol; Metacresylic Ester of Salicylic Acid.— $C_6H_4.OH.COOC_6H_4.CH_3 = 228.17$.—Wh. powd.—SOL.: A.; insol. W.—MELT.: 74° C.—USES & DOSE: As of paracresalol, as succedan. f. salol.

o-Cresalol

Orthocresalol; Orthocresylic Ester of Salicylic Acid.— $C_6H_4.OH.COOC_6H_4.CH_3 = 228.17$.—Wh. powd.—SOL.: A., E.; insol. W.—MELT.: 35° C.—Not used therapeutically.

p-Cresalol

Paracresalol; Paracresylic Ester of Salicylic Acid; Cresol Salicylate.— $C_6H_4.OH.COOC_6H_4.CH_3 = 228.17$.—Wh., cryst. powd.—SOL.: A., E.; insol. W.—MELT.: 40° C.—ACTION: Antisep.; Antirheum., like salol.—USES: Asiatic cholera, typhoid, dysent., rheum., &c.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.—MAX. D.: 4 Gm. (60 grn.) p.d.

Cresatin

Kresatin; Metacresyl Acetate; Metacresol-acetic acid Ester.— $CH_3.C_6H_4O(CH_3CO) = 150.13$.—Colorl., oily, liq.; charact. odor.—SOL.: Usual organic solvents; alm. insol. W.; misc. w. liq. petrolatum, fixed & vol. oils, N.N.R.—ACTION: Antisep.; Analges.—USES: Follicular tonsillitis, nasal suppur., furunculosis of extern. auditory canal, & purul. otitis media.—APPL.: Pure, or as spray, or dil. w. oils or A.

Cresol Merck—U.S.P. X

Kresol; Cresylol.—Mixt. of isomeric cresols obt'd fr. coaltar.—Colorl. or yellowish to brown-yellow, or pinkish. liq.; phenol-like odor; becomes darker w. age & on expos. to light.—SOL.: Abt 50 W. at 25° C. (solut. us'y cloudy), & misc. w. A., B., E., G., & petrol. benzin, & also sol. in soluts. of fixed alkali hydroxides, U.S.P.; (also in C., B.P.).—Sp. Gr.: 1.030–1.038 at 25° C., U.S.P.; (1.040–1.050 at 15.5° C., B.P.).—BOIL.: Not less than 90% by vol. distills betw. 195°–205° C.—ACTION: Antisep.; Disinf.—USES: By *inhal'n* in whoop-cough & o. respir. affections; *intern.*, as gastrointest. antisept.—DOSE: 0.06–0.2 cc. (1–3 M); aver. dose 0.06 cc. (1 M).

do. —Comp'd Solution—U.S.P. X

Prep. fr. 50 cresol, 35 linseed oil, 1.452 KOH, 3.911 NaOH, & W. to 100.—USES: Disinfect.

m-Cresol

Metacresol; Metacresylic Acid; Cresylol; Metaoxytoluene; Metamethylphenol.— $C_6H_4.OH.CH_3[1:3] = 108.10$.—Fr. coal-tar by fract. dist., or fr. thymol by P_2O_5 & KOH.—Colorl. to yellowish liq.; phenol-like odor.—SOL.: A., C., E.; sltly in W.; solub. incr. by alkali or sod. salicylate.—Sp. Gr.: 1.037 at 16° C.—BOIL.: 202° C.—ACTION: Disinfect.; Antisep.; abt one-fourth as poison. as phenol, while much stronger as antisept.—USES: *Medic.*, as of carbolic acid.—*Techn.*, disinf. & fumigat'g comp'ds; manuf. synthetic resins, photog. developers, & ex-

plosives.—DOSE: 0.06–0.2 cc. (1–3 M).—
APPL.: In 0.5% aqu. solut.

***o*-Cresol Merck—N.F.V**

Orthocresol; Cresylalcohol; Orthocresylic Acid; Ortho-oxytoluene; Orthomethylphenol.— $C_6H_4 \cdot OH \cdot (CH_3)[1:2] = 108.10$.—Obt. fr. tar oil by fract. dist'n.—Colorl. cryst. or liq. becoming darker w. age & exposure; phenolic odor.—SOL.: A., C., E.; w. equal vol. formaldehyde yields a transp. solut.; v. sltly sol. W.—SP. GR.: Abt 1.05.—MELT.: Abt 30° C.—BOIL.: Abt 190° C.—ACTION: Disinf. Less poison. while more powerfully bactericidal than phenol.—USES: As of phenol; manuf. disinf. & fumigat'g comp'ds, cumarone resin, etc.

***p*-Cresol Merck**

Paracresol; "Paracresylic Acid"; Paraoxytoluene; Paramethylphenol.— $C_6H_4 \cdot (CH_3) \cdot OH[1:4] = 108.10$.—By fusing *p*-toluenesulphonic acid & KOH.—Cryst. mass; phenol odor.—SOL.: v. eas. A., C., E.; sltly W.—MELT.: 33°–36° C.—BOIL.: Abt 202° C.—ACTION: Disinfect.—USES: In disinf. & fumigat'g comp'ds; manuf. various dyes.

o-CRESOL ACETATE—see Acetyl-*o*-cresol

CRESOL IODIDE—see Europen

* CRESOL RED—see *o*-Cresolsulphonphthalein

CRESOL SALICYLATE—see *p*-Cresalol

CRESOL SOLUTION, COMPOUND—see Solution Cresol Compound

m-CRESOLACETICACID ESTER—see Cresatin

***o*-Cresolphthalein**

$O \cdot CO \cdot C_6H_4 \cdot C \cdot (C_6H_3 \cdot CH_3OH)_2 = 346.25$.—Reddish yellow, cryst. powd.—SOL.: Eas. A.—USES: As indic. in 0.02% alcoh. solut.; PH = colorl. 8.2–9.8 red.

***o*-Cresolsulphonphthalein**

Cresol Red.— $O \cdot SO_2 \cdot C_6H_4 \cdot C \cdot (C_6H_3 \cdot CH_3OH)_2 = 366.31$.—Purple-red, cryst. powd.—SOL.: Eas. A.—USES: As indic. in 0.2% alcoh. solut.; PH = yellow 7.2–8.8 red.

CRESOTAL = Creosote Carbonate

CRESYL—see Acid Cresylic

CRESYLALCOHOL—see *o*-Cresol

o-CRESYLIC ACETATE—see Acetyl-*o*-cresol

CRESYLOL—see Cresol; *m*-Cresol

p-CRESYLOL—see Acid Cresylic

CRETAN DITTANY—see Dictamnus

Crisp mint

Balm Mint; Curled Mint; Cross Mint.—Lvs of *Mentha crispa*, L., Labiatae.—HABIT: Germany.—CONSTIT.: Volat. oil; tannin.—ACTION: Arom.; Carmin.—USES: Colic, flatulence, cholera & diar., usually as a "tea."

CROCUS—see Saffron

CROCUS ANTIMONY—see Antimony Oxide, Brown

CROCUS MARTIS—see Iron Hydroxide, Ferric

CROCUS MARTIS ADSTRINGENS—see Iron Oxide, Red, Ignited

CROCUS METALLORUM—see Antimony Oxide, Brown

CROSS MINT—see Crisp mint

Cross-Bevan's Solution—Test for Cellulose

A 30% solut. $ZnCl_2$ in HCl (sp. gr. 1.19).—The solution dissolves cellulose.

Crotalin

Specially prepared venom fr. the venom-sac of the rattlesnake, *Crotalus horridus*, & *C. adamanteus*.—USES: Epilepsy; nervous asthma; pneum.; tuberc.; also f. immunizing against snake bites.—DOSE: Subcut. 0.0003 Gm. ($\frac{1}{200}$ grn.) to begin with, & incr. to 0.0012 Gm. ($\frac{1}{80}$ grn.), during the course of sev'l weeks. Intraven. inj. not advisable.

Croton

Mixt. of exceedingly toxic albuminoids fr. seeds of *Croton Tiglium*.—Wh. powd.—SOL.: Solut. NaCl.—A vegetable agglutinin w. hemolytic action on blood of rabbits & crows; coagulates both boiled & unboiled milk.

Croton—Fr. Cod.

Purging Croton; Molucca Grains.—Seeds of *Croton Tiglium*, L., Euphorbiaceae.—HABIT.: East Indies; Philippines.—CONSTIT.: Fixed oil (croton oil), cont. tiglic acid, crotonol, croton resin, &c.—USES: Rarely as drastic purgative in veter. med. Us'ly croton oil is used.—DOSE: 0.06–0.12 Gm. (1–2 grn.) purge severely.

"CROTON" CHLORAL—see Butyl-Chloral

"CROTON" CHLORAL HYDRATE—see Butyl-Chloral Hydrate

CROWN BARK—see Cinchona, Pale

Cryogenine

Phenylsemicarbazide; Metabenzaminocarbazide; Kryogenin.— $NH_2 \cdot CO \cdot C_6H_4 \cdot NH \cdot NHCO \cdot NH_2 = 194.15$.—Wh., odorl., somewh. bitter, cryst. powd.—SOL.: A., C., E., acetone; abt 100 W.—MELT.: Abt 172° C.—ACTION: Antipyr.—USES: Phth., typhoid.—DOSE: as antipyretic, 0.25–2 Gm. (4–30 grn.); analgesic, 1–3 Gm. (15–45 grn.)

Cryolite—Mineral

OCCUR.: Greenland; U. S.—COMPOS.: $AlF_3 \cdot 3NaF$.—CRYST. SYST.: Monosym.—LUSTER: Greasy to vitreous.—COLOR: Colorl. to wh., sometimes reddish or brownish.—STREAK: Wh.—CLEAV.: Poor basal & prismatic at angles of nearly 90°.—BRITTLE: transluc. to transp.—HARDN.: 2.5.—SP. GR.: 2.95–3.—USES: Electrolytic prep. of metal. Al; as flux in metallurgical processes.

Cryptopine

$C_{21}H_{23}NO_5 = 369.30$.—Alkaloid fr. opium.—Wh., cryst. powd.—SOL.: Boil. C. & boil. A.; alm. insol. B. & E.—MELT.: 217° C. w. decomp.

Cryptopine Hydrochloride

$C_{21}H_{23}NO_5 \cdot HCl + 6H_2O = 513.86$.—Wh. cryst. powd.—SOL.: v. eas. W., A.—ACTION: Narcot.

Crystal Violet

Rosaniline Violet; Hexamethylparosaniline Hydrochloride.— $(CH_3)_2N \cdot C(C_6H_4N \cdot [CH_3]_2) : C_6H_4N \cdot (CH_3)_2Cl = 331.79$.—Green cryst. or powd., glist. like cantharides (when anhydr.), or cryst. w. bronze-like luster (w. 9 mol. W. of cryst.).—SOL.: W., w. deep blue color w. violet tinge; in A. & C. w. bluer shade of color; insol. E.—USES: Dye.

Crystallin

Solut. pyroxylin 1, in methyl A. 4, & amyl acetate 15; resembles collodion. An "elastic" crystallin results on add'g 5 castor oil & 10 Canada balsam to 20 crystallin.—USES: As of collodion; vehicle f. chrysarobin, salicylic acid.

CUBE ALUM—see Aluminum & Potassium Sulphate

Cubeb—U.S.P. X; B.P.; Fr. Cod.

Tailed Pepper; Java Pepper.—Dried, unripe, nearly full grown fruit of Piper Cubeba, L. fil., Piperaceæ.—HABIT.: Southern Asia (Java, Borneo, Sumatra); cultiv. in W. Indies & Ceylon.—Berries are globular, 4–5 mm. in diam.; blackish-gray; intern. whitish & hollow; strong, spicy odor; arom., pung. taste.—CONSTIT.: Volat. (10%–18%, B.P.C.) & fixed oils; cubebin; cubebic acid (0.96%, B.P.C.); resin; fat; wax; w. E., yields abt 20% oleoresin.—ACTION: Stim.; Loc. Irrit.; Carmin.; Diuret.; Antiblennorrhic; Sedat.—USES: Gonorr., leucorrh., bronchial catarrh, pharyng., acute urethritis, prostatitis, & nasal catarrh.—DOSES: 0.6–4 Gm. (10–60 grn.); aver. dose 2 Gm. (30 grn.).—Fl' dextr., 0.6–4 cc. (10–60 M).—Oleores., 0.3–2 cc. (5–30 M).—Tr. (1:5), 2–8 cc. (30–120 M).

Cubebin

$CH_2 : O_2 : C_6H_3 \cdot C_3H_4 \cdot OH = 178.13$.—Bitter substance fr. fruit Piper Cubeba, L. fil. (Cubeb).—Wh. cryst.—SOL.: A., C., E.—MELT.: 125° C.—Physiologically inactive.—"Cubébine" is the French designation for ethereal extract cubeb.

Cubes—For Generating:**Chlorine**

Cubes compressed fr. chlorinated lime.—To be used w. As-free HCl.

Hydrogen Sulphide—Accord. to Winkler**"Sulphur Dioxide"**

Mixt. $CaSO_3$ & $CaSO_4$.—To be used w. As-free HCl.

CUBIC NITER, or SALT PETER, or SODA—see Sodium Nitrate

CUCA—see Coca

Cudbear—N.F. V

Persio.—Color. matter fr. species of Lecanora, Rocella, & o. lichens.—Purplish-red powd.—Imparts fine purplish-red color to A., & acid &

neutral liquids; the purple tinge may be covered by add'g a few drops burnt-sugar coloring.—USES: Color f. syrups, elixirs, etc.

CUENCA BARK—see Cinchona, Pale

CULVER'S ROOT—see Leptandra

CUMARIC ANHYDRIDE } see Coumarin
CUMARIN }

Cumene Merck—(Cumol)—Technical

Pseudocumol; Assymetrical Trimethylbenzene.— $C_6H_3(CH_3)_3[1:2:4] = 120.14$.—Fr. coal tar.—Colorl. liq.—SOL.: A., B.—BOIL.: 160°–170° C.—SP. GR.: Abt 0.880 at 16° C.—USES: Sterilizing catgut (by heat. 1 hour at 160° C.); manuf. dyes, perfumes, etc.

pseudo-Cumidine

Aminotrimethylbenzene.— $(CH_3)_3[1:2:4].C_6H_2(NH_2)[5] = 135.16$.—Wh. cryst.—SOL.: A., C., E.—MELT.: 63° C.—BOIL.: 234°–235° C.—USES: Manuf. azo dyes.

Cumin—B.P.C.

Cummin.—Fruit of Cuminum Cyminum, L. Umbelliferae.—HABIT.: Mediterranean region; northern Africa.—CONSTIT.: Volat. (3%–4%) & fixed oils; resin; proteids; malates.—ACTION: Carmin.; Stim.; Arom.—USES: Flavor.; also cookery.—DOSE: 1–4 Gm. (15–60 grn.).

CUMINIC ALDEHYDE—see Cuminol

Cuminol

Cuminic Aldehyde; Paracuminic Aldehyde; Cumyl Hydride; Paraisopropylbenzoic Aldehyde.— $(CH_3)_2CH.C_6H_4.CHO[1:4] = 148.15$.—Constit. of oil of Roman chamomiles.—Yellowish oil; strong, persistent odor; acrid, burn. taste.—SOL.: A., E.—SP. GR.: 0.978 at 15° C.—BOIL.: 237° C.

CUMMIN—see Cumin

CUMYL HYDRIDE—see Cuminol

CUNDURANGO—see Condurango

Cupferron

Ammonium-nitrosobetaphenylhydroxylamine.— $C_6H_5.N.NO.ONH_4 = 155.13$.—Obtained fr. betaphenylhydroxylamine in E. solut. by NH_3 gas & amyl nitrite.—Silvery wh. leaflets.—SOL.: Eas. W., A., E.—MELT.: 163°–164° C.—USES: Separat'g Fe & Cu fr. pract. all o. metals (w. $CuCl_2$ forms grayish-wh. flocks sol. in conc. NH_4OH w. blue color; w. $FeCl_3$ in presence of HCl in excess forms reddish-brown flocks eas. sol. in E. w. deep-red color, & not affected by NH_4 or Na_2CO_3); test f. vanadates (dark-red ppt. sol. in alkali solut.) & Ti (yellow ppt.).

Cupreine

$C_{19}H_{22}N_2O_2 + 2H_2O = 346.32$.—Alkaloid fr. bark var. species Remijia (Cuprea Bark).—Colorl. cryst.—SOL.: A., v. diffic. B., C., CS_2 .—MELT.: 198° C. (when anhydr.).—USES: As of Cupreine Sulphate.

Cupreine Sulphate—B.P.C.

$(C_{19}H_{22}N_2O_2)_2 \cdot H_2SO_4 + 6H_2O = 826.75$.—

Minute, wh. cryst.—SOL.: 813 W.; eas. dil. acids.—USES: As of quinine.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Cuprex

A solut. of a copper comp'd in organic solvents.—Clear, pale-green inflammable liq.—ACTION: Insecticide.—USES: Exterminating lice (partic.), & also fleas, bedbugs, etc. Destroys not only the vermin, but their nits as well. For lice, whether of head, body or clothing, a single application usually suffices. As the prep. is free fr. disagreeable odor & other usual unpleasant characteristics, its use is not objected to. The preparation can also be used on dogs (but not cats), chickens, horses, goats, cattle, sheep & rabbits. In applying to animals care must be taken that the liquid does not come into contact with the eyes or nasal membranes.—CAUT.: As it is inflammable, it must not be used near a fire or open flame (gas jet, etc.).

CUPRICIN—see Copper Cyanide

CUPROCITROL—see Copper Citrate

Cuprohemol

Hemol w. 2% Cu in organic comb'n.—Readily absorbable, mildly acting.—USES: Inst. of older copper comp'ds in tuberc., scrof., syph., ecz., anemia, chlorosis, &c.—DOSE: 0.1 Gm. (1½ grn.) 3 t.p.d.—MAX. D.: 0.5 Gm. (8 grn.) 3 t.p.d.

Cuprol

Comp'd of copper & nucleinic acid fr. yeast.—6% Cu.—Green powd.—SOL.: Eas. W.—USES: Inst. of CuSO_4 .—APPL.: In aqu. solut. or in oint. in slow-healing ulcers; also in granular ophthalmia in 5% solut., or in dry powd. on brush.

Curare

Urari; Woorari; Woorali; Wourali; Tubocurare.—Native extr. (arrow-poison of the Orinoco Indians) fr. the bark of var. spec. of *Strychnos* (*Strychnos toxifera*, Benth., & *S. Castelnæana*, Weid).—HABIT.: Orinoco, So. Amer.—Brown, intens. bitter mass.—SOL.: W.; dil. A.—ACTION: Antitetic; Nervine, &c. Paralyzes the ends of the motor nerves of the voluntary (striated) muscles, the paralysis then ascending to the nerve trunks.—USES: Hypoderm. (acts but weakly through the stomach). Antid. f. hydrophobia & strychn.; in tetanus, epilep., rabies. Filter solut. before use.—DOSE: 0.005 Gm. ($\frac{1}{12}$ grn.), 1 or 2 t.p.d., or until effect observed; 0.003–0.03 Gm. ($\frac{1}{20}$ – $\frac{1}{2}$ grn.), B.P.C.—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.06 Gm. (1 grn.) daily.—ANTID.: Artif. respiration, caffeine, strychnine subcut. (0.001–0.005 Gm. [$\frac{1}{80}$ – $\frac{1}{12}$ grn.]), & physostigmine intraven.—VETER. MED., in tetanus in horses & cattle, 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.).—Curare is usually supplied in bamboo tubes, or gourds, & used in physiological investigations (vivisection, etc.).—CAUT.: Avoid getting it into cut or scratch, as it may prove fatal!

Curarine

Tubocurarine.— $\text{C}_{19}\text{H}_{26}\text{N}_2\text{O}$ = 298.32.—Active alkaloidal constit. of curare.—Amorph., red-

brown leaflets.—SOL.: W., A.—ACTION: Antitetic; Nervine; &c.—USES: Recom. in tetanus, hydrophobia, & severe convulsive affect.—DOSE: Subcut., 0.0005–0.005 Gm. ($\frac{1}{120}$ – $\frac{1}{12}$ grn.).—Lethal dose f. rabbits = 0.006–0.012 Gm. per kilo of body weight.—ANTID.: Strychn. atropine, artif. respir., & stim.—CAUT.: Very poisonous!

Curcuma—B.P.C.

Turmeric; Indian Saffron.—Rhizome of *Curcuma longa*, L., Zingiberaceae.—HABIT.: China; East Indies; many tropical countries.—CONSTIT.: Volat. oil (abt 5%); curcumin (yellow coloring matter); starch; resin.—USES: Hepatic Stim.; Tonic in jaundice; Condiment (as curry powd.).—TECHN., color for ointments, solutions, &c.; preparing curcuma paper.

Curcuma Paper

Turmeric Paper.—Wh. paper, charged w. alcohol. (1:6) solut. of yellow color fr. root *Curcuma longa*, L. & dried.—USES: Indic. (caustic alkalies & alkaline earths = reddish-brown; acids = yellow). Partic. useful f. detect. boric acid (brown color).—Sensitiveness abt 1:180,000 for KOH; & 1:35,000 for NH_3 .

Curcumin

Turmeric Yellow.—Color. matter fr. root *Curcuma longa*, L.—Yellow, amorph. mass.—SOL.: A., E., acetic acid, alkalies.—USES: Indicator (borax & alkalies color the solut. brownish-red; acids, light-yellow).

do. —Cryst.

$\text{C}_{19}\text{H}_{12}\text{O}_2(\text{OH})_2(\text{O.C}_3\text{H}_7)_2$ = 368.27.—Orange-yellow cryst. powd.—SOL.: A., glac. acetic acid; diffic. E.; insol. W.—MELT.: 183°C .

CURLED DOCK—see Rumex

CURLED MINT—see Crispmint

CUSPARIA—see Angostura

CUSO—see Brayera

CUTAL—see Aluminum Borotannate

CUTAL SOLUBLE—see Aluminum Borotannate tartrate

CUTCH—see Catechu, Black

CUTTLE-FISH BONE—see Sepia

CUT-WEED—see Fucus

"CYANAMIDE"—see Calcium Cyanamide

CYANBENZENE—see Benzonitrile

CYANGUANIDINE—see Dicyandiamide

Cyanide-Chloride-Carbonate Mixture Merck—Gran.

Mixture of NaCN, NaCl, & Na_2CO_3 .—Cont. 43%–45% NaCN = 23%–24% CN.—USES: Case hardening.

do. Merck—Fused or Gran.

Cont's. 28%–30% NaCN = 15%–16% CN.—USES, ETC.: As of the preced'g.—NOTE: These mixt's are not intended for insecticidal use; for this purpose use NaCN.

Cyanide-Chloride Mixture Merck—Fused or Gran.

Mixt. of NaCN 73%–76% (= 38.7%–40.3% CN), & NaCl.—USES & NOTE: As of preced'g.

Cyanine Merck—Cryst.

Cyanine Iodide; Diamylcyanine Iodide; Quinoline, or Chinoline, Blue.— $C_{30}H_{39}N_2I$ = 554.40.—Dye fr. quinoline & lepidine.—Monocl. prisms; green metal luster.—SOL.: A. (deep blue color), warm W.—USES: Test f. I (Golenkin); isochromatizing plates in photog. in natural colors.

Cyanine Hydriodide

$C_{30}H_{39}N_2I \cdot HI$ = 682.33.—Yellow cryst. powd.—SOL.: W.

CYANINE IODIDE—see Cyanine

CYANITE—see Rhaetizite

Cyanogen Bromide

CNBr = 105.93.—Colorl. cryst.; volat. at ord. temp.; vapors highly irritant & poisonous.—SOL.: Eas. W., A.—BOIL.: Abt 61° C.—USES: Chem. synthesis.

Cyanogen Chloride

CNCl = 61.47.—Colorl. liq.—SOL.: W., A., E.—BOIL.: 12.5° C.—MELT.: -5° C.—USES: Military poison gas; organ. synthesis.

CYANOGEN IODIDE—see Iodine Cyanide

Cyarsal

Potassium *p*-Cyanomercurisalicylate.—46% Hg.—Cryst. powd.—SOL.: W. (solut. stated to be neutral & stable even on boil'g.).—ACTION: Antisyphil.—USES: Together w. neosarsphenamine by intraven. inj. in syphilis.—DOSE: 0.5–2 cc. (8–30 M) of solut. cont'g 1% Hg (as mkt'd) together w. 0.45 Gm. (7½ grn.) neo-salvarsan intraven. twice weekly.

Cyclamin

$C_{27}H_{38}O_{13}$ = 570.44. (Rayman).—Glucoside (saponin) fr. roots Cyclamen europæum, L., & Primula veris, L.—Wh., amorph. powd.; intens. acid taste in short time.—SOL.: W., 71 A.; hot G.; insol. B., C., E., CS₂—MELT.: 236° C.—ACTION: Emetic; Cath.

Cycloform

Isobutyl Paraminobenzoate.— $C_6H_4(NH_2) \cdot COO \cdot CH_2 \cdot CH(CH_3)_2$ = 193.18.—Fine, wh., colorl., cryst. powd.—SOL.: A., B., E., acetone, olive oil; sltly W.—MELT.: 65° C.—ACTION: Loc. Anesthetic; Mild Antisep.—USES: Intern., Cardialgia, obst. vomiting.—Extern., dressing f. wounds, ulcers (partic. of leg); treat. burns, rectal dis., chron. ecz., & painful condit. of larynx & pharynx.—DOSE: 0.1–0.2 Gm. (1½–3 grn.).—APPL.: 5%–20% oint., or in supposit., or as dust.—powd.

CYCLOSAL—see Homocamfin

Cycotropin

A clear, sltly yellowish liq. ea. 5 cc. (75 M) of which cont. 2 Gm. (30 grn.) hexamethylenamine, 0.8 Gm. (13 grn.) sod. salicylate, & 0.2 Gm. (3 grn.) caffeine sodiosalicylate.—ACTION: Diuret.—USES: Infectious processes of the urinary passages, pyonephritis, pyelitis, cystitis, & infectious inflammations of the biliary canals.—DOSE: 5 cc. (75 M) by intravenous inj. p. day.

Cymarin

New Apocynamarin.—Cryst. act. principle fr. Apocynum cannabinum.—Colorl., v. bitter prisms.—SOL.: Eas. A. C., acetone; diffic. B., E., CS₂; sltly cold, more eas. hot, W.—MELT.: Abt 135°–140° C.—ACTION: Cardiac Tonic & Diur. like digitalis.—DOSE: 0.0003–0.0006 Gm. ($\frac{1}{200}$ – $\frac{1}{100}$ grn.) in tablet per os or subcut. (mkt'd in tabl. of 0.3 Mgm. [$\frac{1}{200}$ grn.] ea., & in ampuls cont. 17 M [1.1 cc.] = 0.1 Mgm. [$\frac{1}{600}$ grn.] substage).

Cymene—(Not Cumene)

Cymol; Isopropyltoluene; Paracymol; Paramethylisopropylbenzene.— $C_6H_4(CH_3) \cdot C_3H_7[1:4]$ = 134.16.—Fr. camphor by heat'g w. P₂O₅.—Colorl., transp. liq.; arom. odor.—SOL.: A., C.—BOIL.: 175°–176° C.—SP. GR.: 0.859–0.861.—USES: Solvent f. fats, etc.; manuf. azo dyes, explosives, matches, intermediates, synthetic rubber.

CYME FROM OIL TURPENTINE—see *m*-Methylpropylbenzene

m-CYMOL—see *m*-Methylpropylbenzene

p-CYMOL—see Cymene

β-CYMOPHENOL—see Carvacrol

CYNOSBATA—see Rose, Dog

CYPRIAN TURPENTINE—see Turpentine, Chian

Cypripedin (Concentration)

Extr. fr. conc. tinct. of root Cypripedium pubescens, Willd.—Brown powd.—SOL.: A.—ACTION: Nervous Stim.; Antispasm.—USES: In neural. & hypochond.—DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.).

Cypripedium—N.F. V; B.P.C.

Lady's Slipper; American Valerian; Nerve Root; Yellow Moccasin Flower; Noah's Ark.—Dried rhizome & roots of Cypripedium bulbosum, Miller, C. pubescens, Willd., & of C. parviflorum, Salisbury, Orchidaceæ.—HABIT: Nova Scotia south to Alabama, & west to Nebraska & Missouri.—CONSTIT.: Cypripedin; volat. oil; volat. acid; tannin; gallic acid; resins.—ACTION: Nervine; Stim.; Antispasm.; Analg.—USES: Neuralg., hypochond., &c.—DOSES: 0.6–2 Gm. (10–30 grn.); aver. dose 1 Gm. (15 grn.).—Extr., 0.12–0.3 Gm. (2–5 grn.).—Fl' dextr., 0.6–2 cc. (10–30 M).

CYSTAMIN—see Methenamine

Cystine

α-Diamino-β-dithiodilactylic Acid.— $COOH \cdot NH_2 \cdot CH_2 \cdot CH_2 \cdot S \cdot S \cdot CH_2 \cdot CH \cdot NH_2 \cdot COOH$ = 240.26.—Human & animal metabolism product, found in large quant. in the so-called cystin calculi as a pathological product.—Wh., levo-gyrate, cryst. powd.—SOL.: Mineral acids, caustic alkalies, & NH₄OH; sltly W.; insol. A.

CYSTOGEN—see Methenamine

Cytisine

Ulexine; Sophorine; Baptitoxine.— $C_{11}H_{14}N_2O$ = 190.18.—Alkaloid fr. seeds of Cytisus Laburnum, L., & many o. Papilionaceæ.—Considered identical w. ulexine fr. Ulex europæus; sophorine fr. Sophora speciosa; &

baptitoxine fr. *Baptisia tinctoria*.—Colorl. to yellowish-wh. cryst.—SOL.: W., A., B., C.; insol. CS₂, CCl₄.—MELT.: 152°–154° C.—ACTION: See under Cytisine Hydrochloride.

Cytisine Hydrochloride

C₁₁H₁₄N₂O.HCl = 226.65.—Wh. cryst.—SOL.: W., A.—ACTION: Drastic Cathart.; Emetic; Diuret.—USES: Hyperemia following chron. arsenical poisoning, dyspepsia w. bilious vomit'g, disturbances of hepatic function, vomit'g of pregnancy, asthma, dyspnea, bronchial cough, paralyt. migraine, whoop-cough & edema.—DOSE: 0.003–0.012 Gm. (1/20–1/5 grn.).—Subcut. 0.001 Gm. (1/60 grn.) in v. low blood pressure, e.g. in paralyt. migraine, edema,

melancholia, etc.; 0.005 Gm. (1/12 grn.) in de-ment. paralytica; 0.003–0.007 Gm. (1/20–1/8 grn.) in melancholia, anxiety, suicidal tendency, disturbances of speech, cyanosis, etc.—MAX. D.: 0.01 Gm. (1/2 grn.).

Cytisine Nitrate—Cryst.

C₁₁H₁₄N₂O.HNO₃ + H₂O = 271.22.—Yellowish cryst.—SOL.: W.; sltly A.; insol. E.—USES: Paralytic migraine, etc.—DOSE: 0.003–0.005 Gm. (1/20–1/12 grn.) subcut. p. day.

Czokor's Alum-Cochineal

Boil 1 Gm. cochineal w. 100 cc. 1% solut. potassium alum until evap. to 50 cc., & add 0.5 Gm. phenol.—USES: Nuclear stain.

D

DAHLIA—see Gentian Violet BBB

DAHLIA VIOLET—see Hofmann's Violet

DAHLIN—see Inulin

DAISY, BLUE—see Chicory

DAKIN'S SOLUTION, MODIFIED—see Solution Soda Chlorinated, Surgical

Damar

Gum Damar; Dammar; Resin Damar.—Resinous exudate fr. *Shorea Wiesneri*, Schiffrer, Dipterocarpaceæ.—HABIT.: East Indies; Philippines.—Yellowish-wh., roundish, or stalactite-shaped, friable masses; semi-transparent; conchoidal fracture; varying degrees of hardness.—SOL.: A., C., E.; CS₂; conc. H₂SO₄; oil rosemary; oil turpent. (abt. 66%).—SP. GR.: 1.04–1.12.—MELT.: Abt. 120° C.—CONSTIT.: Volat. oil; resins (alpha- & beta-); bitter substce.—USES: *Techn.*, in plasters, varnishes, lacquers, &c.; when purified & dissolved in chloroform or xylene is used f. preserv. animal & vegetable specimens f. microsc.

Damiana—N.F. V; B.P.C.

Dried lvs of *Turnera diffusa*, Willd., or of *T. aphrodisiaca*, Ward, Turneraceæ.—HABIT.: Texas to Lower California.—CONSTIT.: Volat. oil (0.5%–1% B.P.C.), resins (two); bitter principle (damianin); tannin; sugar; albuminoids; gum.—ACTION: Aphrodisiac, Tonic & Diuret.—USES: Sexual atony.—DOSES: 2–8 Gm. (30–120 grn.) in powd.; aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).—Tr. 4–12 cc. (1–3 fl. dr.).

DAMMAR—see Damar

Danaite—Mineral

Cobalt-arsenic Pyrites.—OCCUR.: Franconia, N. Hampshire, U. S.—COMPOS.: (Fe,Co)AsS w. (Fe,Co)(AsS)₂.—CRYST. SYST.: Rhomb.—USES: Source of cobalt comp'ds.

DANDELION—see Taraxacum

Daphnetin

Diöxycumarin; 2,3,4-Trioxycinnamic Anhydride.—(OH)₂C₆H₂(O.CO):CH:CH = 178.09.—

Fr. daphnin (glucoside fr. bk of *Daphne Mezereum*) by hydrolysis.—Yellowish-wh. cryst.—SOL.: Hot dil. A., boil. W., alkalies; v. sltly in E.—MELT.: Abt 255° C. w. decomp.—Sublimes below melt.-point.

Datura—B.P.

Dried lvs, & also dried seeds, of *Datura fastuosa*, L., var. *alba*, Nees (lvs also fr. *D. Metel*, L.), Solanaceæ.—HABIT.: India.—CONSTIT.: Lvs, hyoscyne (0.5%, B.P.C.), w. traces of hyoscyamine & atropine; seeds, as of the lvs, but also resin & fixed oil.—ACTION & USES: As of belladonna & stramonium; the lvs also smoked as cigarettes in asthma.—DOSE: Tr. (1:4, of seeds, made w. 70% A.) 0.3–1 cc. (5–15 M).

Daturine

C₁₇H₂₃NO₃ = 289.28.—Alkaloid fr. *Datura Stramonium*, L. Ident. w. hyoscyamine; isomeric w. atropine (as stated by Ladenburg).—Wh., felted need.—SOL.: A., C., E.—MELT.: 106°–108° C.—ACTION: Sedat.; Hypnot.—USES: Mania; epilepsy, neural., rheum., syph., cancer, pains, & spasm. asthma; hypnotic to insane.—DOSE: 0.00025–0.001 Gm. (1/240–1/60 grn.).—ANTID.: Emetics, stomach siphon, castor oil, opium, stimulants.—CAUT.: Poison!

Daturine Hydrochloride Merck

C₁₇H₂₃NO₃.HCl = 325.75.—Wh. cryst. powd.—SOL.: W., A.—USES & DOSES: As of daturine.

Daturine Sulphate

(C₁₇H₂₃NO₃)₂.H₂SO₄ + H₂O = 694.65.—Wh. cryst.—SOL.: W., A.—USES & DOSE: As of daturine.

DEADLY CARROT—see Thapsia

DEADLY NIGHTSHADE } see Belladonna Leaves
DEATH'S HERB }

DECANDIACID—see Acid Sebacic

DEERBERRY—see Gaultheria

DEER'S TONGUE—see Liatris

DEGENER'S INDICATOR—see Phenacetolin

Dekalin, Extra

A mixt. of 80% dekahydronaphthalene (dekalin, $C_{10}H_{18}$) & 20% tetrahydronaphthalene (tetralin, $C_{10}H_{12}$).—Misc. w. all solvents except W., A. below 95% & methyl A.—SP. GR.: 0.900 at 20° C.—BOIL.: 185°–198° C.—FLASH-PT.: 60° C.—USES: Solvent f. resins, etc., in varnishes, & inst. of turp. in lacquers; as fuel f. motors, stoves, etc.

Delafield's Hematoxylin

Mixt. solut. 4 Gm. hematoxylin in 25 cc. A. w. 400 cc. satur. aqu. solut. ammonium alum. After sev'l days' expos. to air & light, 100 cc. each of G. & methyl A. are added.—USES: Stain. nuclei intense blue; protoplasm pale blue.

Delphinine

$C_{22}H_{35}NO_6$ = 409.40.—Alkaloid fr. seeds of Delphinium Staphisagria, L.—Sm. wh. cryst.—SOL.: A., E.; v. eas. C.; alm. insol. W.—MELT.: 191°–192° C.—ACTION: Antineural. & Antispasm., like aconitine.—USES: Facial neural., chronic rheum., convuls., palpit. of heart; pediculosis, &c.—DOSE: 0.001 Gm. ($\frac{1}{60}$ grn.) (B.P.C.) grad. increased to 0.04 Gm. ($\frac{3}{4}$ grn.) p.d., in pills (the aqu. solut. soon decomposes).—*Extern.*, in 1%–2% oint. or alc. solut.—ANTID., emetics, stomach siphon, stimulants.—CAUT.: Poisonous!

do. Merck—Amorphous

Mixt. of ether-sol. alkaloids fr. seeds of Delphinium Staphisagria, L.—Yellowish powd.—SOL.: E.; eas. C.; v. diffic. W.; partially & v. diffic. A.

Delphocurarine Hydrochloride

Hydrochloride of alkaloid fr. Delphinium scopulorum.—Yellowish powd.—SOL.: W.—Muscle paralyzant, like curarine.

Denigès' Solution—Test for Acetone

Solut. 5 Gm. HgO in warm mixt. of 20 cc. conc. H_2SO_4 & 100 cc. W.—On mixing equal vol. solut. & saturated liquid, a cloudiness or ppt. forms if acetone present.

"DEODORIZED" IODOFORM—see Iodoform, Aromatized

DERMATOL—see Bismuth Subgallate

Desclozite—Mineral

OCCUR.: Argentina; U. S.; Mexico.—COMPOS.: $VO_4(Pb, Zn)$ ($PbOH$).—CRYST. SYST.: Rhomb.—COLOR: Cherry-red to light- or dark-brown, black.—STREAK: Orange to brownish-red or yellowish-gray.—HARDN.: 3.5.—SP. GR.: 5.9–6.2.—USES: Source of vanadic acid.

Desmine—Mineral

Stilbite.—OCCUR.: Iceland.—COMPOS.: $Si_6O_{16}Al_2(CaNa_2K_2)6H_2O$, w. $Si_4Al_2O_{16}Al_2(CaNa_2K_2)6H_2O$.—CRYST. SYST.: Monosym.—LUSTER: Vitr.—COLOR: Wh., occas. yellow, brown or red, to brick-red.—STREAK: Uncolored.—FRACT.: Uneven.—HARDN.: 3.5.–4.—SP. GR.: 2.094–2.205; 2.161.

DESOXYALIZARIN—see Anthrarobin

Deuteroalbumose

Albuminoid product result. fr. the conversion of primary albumoses into peptones.—Yellowish powd.—SOL.: Alkalies & dil. acids.—USES: Typhoid, paratyphoid "B," typhus, dysentery, diphth., scarlatina, variola, erysip., artic. rheumat., pleural exudates, tetanus, tuberc., tubercular meningit., streptococcus sepsis, etc.—DOSE: 1–3 cc. (15–45 M) of a 1%–10% solut. *intraven.*

DEVARDA'S ALLOY—see Devarda's Metal

Devarda's Metal Merck—Reagent

Devarda's Alloy.—50 Cu, 45 Al, & 5 Zn.—Gray powd.—SOL.: Part. in HCl w. residue of Cu.

MAXIMUM OF IMPURITIES

Nitrogen (N) 0.0056%

USES: Determ. N by reduct'n of nitrates' nitrites, etc. to NH_3 .

DEVIL'S APPLE—see Podophyllum; Stramonium

DEVIL'S DUNG—see Asafetida

De Vrij's Solution—Test for Quinine

Alcoh. solut. quinoidine iodide.—The H_2SO_4 solut. of quinine alkaloid affords w. the test solut. a brownish-red ppt. (herapathite; quinine iodosulphate).

Dextrin Merck—C.P.

$(C_6H_{10}O_5)_n + xH_2O$.—Fr. starch, by dilute mineral acids, or diastase.—Wh., odorl., amorph. powd.—SOL.: Eas. hot., more slowly in cold, W.; insol. A., E.—Strongly dextrogyrate.

MAXIMUM OF IMPURITIES

Alcohol-Sol. Substcs. 1.000%

Ash. 0.500%

Moisture. 10.000%

Oxalic Acid. 0.080%

Heavy Metals. 0.000%

do. Merck—White, N.F. V

Dry, wh., non-hygroscopic, amorph. powd.—SOL.: Part. cold, 3 boil., W.—ACTION: Digestive; Nutrient.—USES: *Intern.*, in dyspepsia.—*Techn.*, inst. of acacia, & powd. licorice; also as excip. for dry extracts, & prepar. emulsions, pills, & tablets, & for dry bandages.—DOSE: 1–3 Gm. (15–45 grn.) sev'l t.p.d.—CAUT.: Keep dry, well stoppered.

do. Merck—Yellow

Leiocom.—USES: Thickening dye pastes & mordants used in printing fabrics in fast colors, reserves, & discharges; manuf. paper for pastelle painting; sizing paper & fabrics; printing tapestries, &c., prep. felt; manuf. printing rolls & printers inks; glues & mucilage; polishing cereals; in matches, fireworks, & explosives.

DEXTROALPHAPROPYLPYPERIDINE—see Coniine

DEXTRO-ARABINOSE—see Arabinose

DEXTROGLUCOSE—see Dextrose

Dextrose Merck—C.P.—Anhydrous

Glucose; Grape, Starch, Corn, or Honey, Sugar.— $\text{OHCH}_2(\text{CHOH})_4\text{CHO} = 180.13$.—Fr. cane sugar by inversion or fr. starch by hydrolysis.—Wh., odorl., cryst. powd.; sweet taste.—SOL.: v. eas. W., sltly A., insol. E.—MELT.: Abt 140° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Dextrin.....	0.050%
Moisture.....	1.0%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.003%
Heavy Metals.....	0.000%

USES: Prepar'g ferment culture media; detect'g CO in blood (Ipsen), & tellurous acid (Stolba); test f. Cu; as a reducer; also f. prepar'g intraven. soluts.

do. Merck—Pure, U.S.P. X

$\text{C}_6\text{H}_{12}\text{O}_6 \cdot \text{H}_2\text{O} = 198.14$.—Wh., odorl., cryst. powd. or granules; sweet taste.—SOL.: 1 W., 59 A. at 25° C.; more sol. boil. W. & boil. A.—ACTION: Tonic; Dietetic; Stimulant.—USES: *Intern.*, as dietetic in gastric affections, in conditions of acidosis (such as delayed chlorof. poisoning & cyclical vomiting), & as nutritive in wasting diseases.—*Extern.*, as hypertonic dressing f. wounds to promote increased flow of lymph to tissues, & as packing (25% solut. in W. or G.) f. nasal cavities in ozena & atrophic rhinitis.—*Intravenously*, in circulatory weakness due to nutritional disturbances of the cardiac muscle, in localized (pulmonary) edema, cutaneous diseases (exanthemata), insuff. labor pains, & as prophylactic against injuries due to operations & narcosis.—*Rectally*, in chloroform intoxications, etc.—DOSE: *Intraven.*, in circulatory weakness, pulmon. edema, & exanthemata, 25 cc. (6¼ fl. dr.) 50% solut.; in insuff. labor pains, 10 cc. (2½ fl. dr.) 50% solut.; as prophylactic f. operative shock, 10 cc. (2½ fl. dr.) 10% solut. injected the evening before the operation, & partic. where there is circulatory weakness.

do. Merck—Solution, Sterilized, 50%

1 cc. = 0.58–0.60 Gm. Dextrose U.S.P. X, in ampuls, specially prepared f. intraven. injection.—USES: See preceding.

DIABETIN = Crystallized Fructose (Levulose)

DIACETIC ESTER—see Ethyl Acetoacetate

DIACETONAMINE DIOXALATE—see Diacetoneamine Oxalate

Diacetoneamine Oxalate

Normal Diacetoneamine Dioxalate.— $\text{C}_6\text{H}_{13}\text{NO} \cdot \text{C}_2\text{H}_2\text{O}_4 + \text{H}_2\text{O} = 223.18$.—Fr. acetone, NH_3 , & oxalic acid.—Colorl. cryst.—SOL.: Diffic. cold W. or A., v. eas. hot W., or hot A.

DIACETOXYMERCURI-NITROCRESOL—see Metaphen

DIACETYLAMINOAZOTOLUENE—see Dimazon

DIACETYLDIOXIME—see Dimethylglyoxime

DIACETYLDIOXYPHENYLISATIN—see Isacen

Diacetylmorphine Merck—U.S.P. IX

Diacetic Acidester of Morphine; Heroin; Diamorphine, B.P.C.— $\text{C}_{17}\text{H}_{17}(\text{O} \cdot \text{C}_2\text{H}_3\text{O})_2\text{ON} = 369.30$.—Wh., cryst., odorl., bitter powd.—SOL.: Abt 1700 W., 31 A.; 1.4 C., 100 E., at 25° C.—MELT.: 171.5°–173.5° C.—ACTION: Cough-sedative; Respir. Sedat.; Antispasmodic.—USES: Phthisis, bronchitis, coughs, asthma, &c.—DOSE: 0.0025–0.008 Gm. ($\frac{1}{24}$ – $\frac{1}{8}$ grn.); aver. dose 0.003 Gm. ($\frac{1}{20}$ grn.).—INCOMP.: Tannin.

Diacetylmorphine Hydrochloride Merck—U.S.P. IX

Diamorphine Hydrochloride, B.P.— $\text{C}_{17}\text{H}_{17}\text{NO} \cdot (\text{C}_2\text{H}_3\text{O}_2)_2 \cdot \text{HCl} + \text{H}_2\text{O} = 423.78$.—Wh. cryst., odorl., bitter powd.—SOL.: 2 W. at 25° C.; sol. A., insol. C., E., U.S.P. IX; 3 W., 11 A. (90%). B.P.—MELT.: Abt 230° C. w. decomp., U.S.P. IX; 231°–232° C., B.P.—ACTION: Cough-sedative; Antispasmodic.—USES: Phthisis, bronch., asth., &c.—DOSE: 0.0025–0.008 Gm. ($\frac{1}{24}$ – $\frac{1}{8}$ grn.); aver. dose 0.003 Gm. ($\frac{1}{20}$ grn.). Children, 0.0002–0.001 Gm. ($\frac{1}{300}$ – $\frac{1}{60}$ grn.).—MAX. D.: Adults, 0.015 Gm. ($\frac{3}{4}$ grn.).—INCOMP.: Tannin; alkalies; carbonates.

Dial

Diallylbarbituric Acid.— $(\text{CH}_2 \cdot \text{CH} \cdot \text{CH}_2)_2\text{C} \cdot (\text{CONH})_2 \cdot \text{CO} = 208.16$.—Colorl. cryst.—SOL.: Diffic. cold, more eas. in hot. W.; eas. A., E.—MELT.: 170°–171° C.—ACTION: Sed.; Hypn.—USES: Nervousness, anxiety, insomnia, cure of morphine habit, etc. DOSE: In nervousness & anxiety, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.); in insomnia 0.1–0.2 Gm. (1½–2 grn.).

DIALLYL OXIDE—see Allyl Oxide

DIALLYL SULPHIDE—see Allyl Sulphide

DIALURAMIDE—see Uramil

DIAMIDE HYDRATE—see Hydrazine Hydrate

DIAMIDOGEN SULPHATE—see Hydrazine Sulphate

DIAMIDOPHENOL—see Diaminophenol Hydrochloride

DIAMINE SULPHATE—see Hydrazine Sulphate

DIAMINETHANE—see Ethylenediamine, Hydrated

DIAMINOACRIDINIUM MONOHYDROGEN SULPHATE—see Proflavine

p-Diaminoazobenzene [4 : 4]

Para-azoaniline.— $\text{NH}_2\text{C}_6\text{H}_4 \cdot \text{N}_2 \cdot \text{C}_6\text{H}_4\text{NH}_2 = 212.19$.—Orange-red, lustr. cryst.—SOL.: A., B., C., E.; sltly W.—MELT.: 250° C., w. previous softening.—USES: Manuf. dyes.

DIAMINOAZOBENZENE HYDROCHLORIDE.—see Chrysoidine, Orange

DIAMINOENZAN, (or -ZENE, or -ZOL)—see o-, m-, or p-Phenylenediamine

DIAMINODIHYDROXYARSENOBENZENE (Di) Hydrochloride—see Arsenphenamine

p-DIAMINODIPHENYL—see Benzdine

α-DIAMINO-β-DITHIODILACTYLIC ACID—see Cystine

o-DIAMINODITOLYL—see Tolidine

DIAMINOMETHYLACRIDINIUM CHLORIDE—see Acriflavine, Neutral

DIAMINOMETHYLACRIDINIUM CHLORIDE MONO-HYDROCHLORIDE—see Acriflavine

Diaminophenol Hydrochloride

Amidol; Diamidophenol. — $C_6H_3(NH_2)_2[2:4]-OH$ [1]. $2HCl$ = 197.05. —Fr. dinitrophenol, Sn, & HCl . —Grayish-wh. cryst.—SOL.: Eas. W.; stlty in A.—USES: Photo. developer; test f. formaldehyde (Lindet; Manget-Marion; Nicholas), & NH_3 (Manget-Marion); dyeing furs & hair.

DIAMMONIUM ARSENATE—see Ammonium Arsenate.

DIAMMONIUM CITRATE—see Ammonium Citrate

DIAMMONIUM HYDROGEN PHOSPHATE—see Ammonium Phosphate

DIAMMONIUM ORTHOPHOSPHATE—see Ammonium Phosphate

DIAMOND GREEN B—see Malachite Green

DIAMOND GREEN G—see Brilliant Green

Diamond Ink

Etching Ink.—Mixt. of HF , $BaSO_4$, & fluorides. —Milky wh. liq., w. a heavy sediment.—USES: Etching glass.—CAUT.: Shake well bef. using, & gently warm in a lead dish. Keep in gutta-percha, hard-rubber, ceresin, or paraffin-coated (internally) bottles.

DIAMORPHINE—see Diacetylmorphine

iso-Diamylamine

$(C_5H_{11})_2NH$ = 157.24.—Fr. isoamylamine & isoamyl bromide.—Colorl. liq.—SOL.: A., C., E.; stlty in W.—SP. GR.: 0.777 at $15^\circ C$. —BOIL.: $186^\circ C$.

Diamylamine Hydrochloride

$(C_5H_{11})_2NH.HCl$ = 193.71.—Wh., cryst. powd.—SOL.: W., A.

DIAMYL CYANINE IODIDE—see Cyanine

DIAMYLENE—see Dipentene

DIANIL RED—see Congo Red

DIAPHORETIC ANTIMONY—see Potassium Antimonate

Diaphtherine

Oxyquinaseptol.— $C_6H_4(OH)SO_3H.(C_9H_6N.OH)_2$ = 464.36.—Comp'd of 1 mol. *o*-phenol-sulphonic acid & 2 mols. oxyquinoline.—Yellow, cryst. powd.—SOL.: Dil. A.; v. eas. W.—MELT.: $85^\circ C$.—ACTION: Nontoxic Antisept.—USES: *Intern.*, artic. rheum.—*Extern.* like iodoform f. dressings, ulcerations, burns, & in dentistry.—DOSE: 0.5–1 Gm. (8–15 grn.) p.d.; children 0.01–0.02 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.) single.—APPL.: 0.5%–2% solut.

Diaspirin

Succinylidisalicylic Acid.— $HOOC.C_6H_4.O(CO.CH_2.CH_2.CO)O.C_6H_4.COOH$ = 358.20.—White cryst., odorl., alm. tastel. powd.—SOL.: A.; v. stlty W.—MELT.: 176° – $180^\circ C$.—USES:

As of salicylic acid & salicylates, in influenza, inflammatory exudative processes, etc.; also as diaphoretic.—DOSE: 0.5–1 Gm. (8–15 grn.).

DIASTASE, ANIMAL—see Amylopsin

Diastase of Malt Merck—Medicinal—U.S.P. IX

Maltin.—Mixt. cont'g amylolytic enzymes obt. fr. malt; converts 50 times its wt potato starch into sugars (dextrin & maltose).—Yellowish-wh. amorph. powd., or transluc. scales. Loses amylolytic power on keeping, on heat'g solut. above $85^\circ C$., or on adding much acid.—SOL.: W. w. more or less turb.; alm. insol. A.—ACTION: Amyolytic.—USES: Insuff. digestive power of saliva, recogn. by amyloorrhoea in feces; hyperchlorhydria.—*Techn.*, manuf. soluble starch; converting starch into sugar; removing starch from fabrics.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d. w. meals when carbohydrates are given; aver. dose 0.5 Gm. (8 grn.).—VETER. MED. in lumbago in horses.—CAUT.: Keep well stopp.

do. Merck—Absolute

Organ. protein ferment in wheat & barley malt; converts 100 times its wt. starch into maltose.—Yellowish-wh. to light brownish-wh., amorph. powd.; no unpleas. odor or taste.—SOL.: Alm. compl. in 100 W. w. v. slt turb.—ACTION & USES: As of preced'g.—DOSE: 0.06–0.2 Gm. (1–3 grn.) 5 t.p.d. w. meals.

Diastase, Taka-

Koji.—Enzyme produced by action of *Aspergillus Oryzae*, Cohn, on moist rice.—Whitish-yellow, v. hygroscop. powd.; converts over 300 times its wt starch into maltose.—ACTION: Amyolytic.—USES: Faulty digestion of starch, digestive disturbances due to gout, hyperacidity, &c.—*Techn.*: Preparation of the Japanese national drink "saké," & convert. maize into sugar in manuf. whisky.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Diastase, Vera-

Ferment of high diastasic power obt'd fr. pancreatic gland of the pig.—Light, yellowish powd.—SOL.: W. (not completely).—Digests 150 times its weight of starch.—USES: Starch digestant in amylaceous dyspepsia, etc.—DOSE: 0.12 Gm. (2 grn.) & upwards.

DIATERPENIC ANHYDRIDE—see Acid Terpenylic

DIATOMACEOUS EARTH—see Earth, Infusorial

DIAZOAMIDOBENZOL—see Diazoaminobenzene

Diazoaminobenzene

Diazoamidobenzol; Diazobenzolanilid; Benzeneazoaniline.— $C_6H_5N:N.NH.C_6H_5$ = 197.17.—Fr. aniline, HCl , & $NaNO_2$.—Golden-yellow small cryst.—SOL.: v. eas. B., E.; hot A.; insol. W.—MELT.: $96^\circ C$; explodes on heating.—USES: Manuf. azo dyes.

DIABENZOLANILID—see Diazoaminobenzene

DIBENZOYL—see Benzile

DIBENZYL FUMARATE—see Benzyl Fumarate

DIBENZYL SUCCINATE—see Benzyl Succinate

DIBENZYL SULPHIDE—see *di*-Benzyl Sulphide

α -Dibromanthracene

$C_6H_4.C_2Br_2.C_6H_4 = 335.97$.—Fr. anthracene & Br.—Yellow cryst.—SOL.: C.; sltly A., E.; insol. W.—MELT.: $221^\circ C$.; sublimes undecomp.—USES: Organ. synthesis.

p*-DIBROMBENZENE (or, -OL)—see Benzene Dibromide** **α -DIBROMCAMPHOR—see Camphor Dibromated*Dibrom-*o*-cresolsulphonphthalein**

Bromcresol Purple.— $\overline{O.SO_2.C_6H_4.C}:(C_6H_2Br.CH_3.OH)_2 = 540.13$.—Bright rose-red cryst. powd.—SOL.: Eas. A.—USES: As indic. in 0.04% alcoh. solut.; PH = yellow 5.2–6.8 purple.

DIBROMETHANE—see Ethylene Bromide**DIBROMETHYLENE DIBROMIDE—see Acetylene Tetrabromide****Dibromin**

Dibrombarbituric Acid; Dibromomalonylureide.— $CO:(NH.CO)_2.CBr_2 = 285.89$.—Colorl., alm. odorl., cryst. powd.—SOL.: Abt 33 W., & in A., E., G.; insol. oils.—MELT.: Abt $150^\circ C$. w. decomp'n.—ACTION: Antisep.; Germicide.—USES: In solut. (1:10000 to begin with, & grad. incr. in strength) f. flushing cavities & irrigat'g infected wounds, & as wet gauze dressing or packing.—INCOMP.: Alkalies; reducers.

DIBROMISOBUTANE }
DIBROM-METHYLPROPANE } $\left\{ \begin{array}{l} \text{see } i\text{-}iso\text{-Butylene} \\ \text{Dibromide} \end{array} \right.$

 α -Dibromnaphthalene (So-called)

$C_{10}H_6Br_2[1:3] = 285.94$.—Wh. to yellowish cryst. powd.—SOL.: A.—MELT.: $64^\circ C$.

 β -Dibromnaphthalene (So-called)

$C_{10}H_6Br_2[1:4] = 285.94$.—Wh. cryst.—SOL.: A.—MELT.: 81° – $82^\circ C$.—BOIL.: $310^\circ C$.

DIBROMOMALONYLUREIDE—see Dibromin**DIBROMOMETHANE—see Methylene Bromide****DIBROMPROPANE—see Trimethylene Bromide****DIBROMOPROPYLDIETHYLMALONYLUREA—see Dio-genal****Dibromsulphonphthalein**

Bromthymol Blue.— $\overline{O.SO_2.C_6H_4.C}:(C_{10}H_7BrO)_2 = 624.26$.—Rose-red powd.—SOL.: Eas. A.—USES: As indic. in 0.04% alcoh. solut.; PH = yellow 6.0–7.6 blue.

 γ -DIBUTYLAMINOPROPYL-*p*-AMINO BENZOATE-*n*-SULPHATE—see Butyn**DICALCIUM ORTHOPHOSPHATE—see Calcium Phosphate, Dibasic****DICHINOYLDIOXIME—see Dinitroresorcinol****Dichloramine—U.S.P. X**

Dichloramine-T.; Paratoluenesulphonedichloramide.— $CH_3.C_6H_4SO_2NCl_2 = 240.08$.—Pale yellowish, cryst., or cryst. powd.; strong Cl

odor; 28%–30% active Cl.—SOL.: Abt 1 B., 1 C., 2.5 CCl_4 , eucalyptol & chlorinated paraffin hydrocarbons, glac. acet. acid; diffic. in petrol. E.; sltly in liq. petrolatum; decomp. by A.; alm. insol. W.—MELT.: Abt $80^\circ C$.—ACTION: Germicide.—USES: As applic. to wounds, & in dis. of nose; not used intern.—APPLIC.: As spray, 10% solut. in chlorinated eucalyptol w. 4 vols. chlorinated paraffin; f. infected wounds a 15% solut. in chlorinated eucalyptol w. $\frac{1}{2}$ to 2 vols. chlorinated paraffin.—CAUT.: Keep in well-closed containers protected fr. light.

DICHLORAMINE-T—see Dichloramine***p*-DICHLORBENZENE, (or -ZOL)—see Benzene Dichloride; Dichloride*****p*-Dichlorbenzenesulphonamide**

$C_6H_3Cl_2.SO_2.NH_2 = 226.06$.—Colorl. cryst.—SOL.: W., A.—USES: Test f. Br & I (Kastle).

DICHLORETHANE—see Dichlorethylene**DICHLORETHANE—see Ethylene Chloride****Dichlorether**

Asymmetric Dichlorethyl Oxide.— $CH_2Cl.CHCl.OCH_2H_5 = 143.00$.—Fr. $(C_2H_5)_2O$ by Cl.—Colorl. liquid.—SOL.: v. eas. A., E.—SP. GR.: 1.174 at $23^\circ C$.—BOIL.: 140° – $145^\circ C$.

DICHLORETHYL OXIDE—see Dichlorether**Dichlorethylene—(Not Ethylene Dichloride)**

Acetylene Dichloride; Dioform.— $ClHC.CHCl = 96.95$.—By pass'g acetylene gas into aq. solut. ICl .—Heavy, mobile liq.; ethereal sltly acrid odor; decomp'd by air, light & moisture (Cl & HCl formed).—SP. GR.: Abt 1.30, B.P.C.—BOIL.: Abt $55^\circ C$.—ACTION: Narcotic.—USES: As solvent of fats, phenol, camphor, iodof., & also of iodine for skin steriliz'n (a 2.5% solut. is used).—DOSE: 15–25 Gm. (4–6 dr.) by inhal.

Dichlorhydrin

α - γ -Dichlor- β -oxypropene; Glycerin Dichlorhydrin; Dichlorisopropyl Alcohol.— $CH_2Cl.CH(OH).CH_2Cl = 128.98$.—Fr. G. & HCl gas by heat, & fract. dist'n.—Colorl. liq. w. ethereal odor.—SP. GR.: 1.367 at $19^\circ C$.—SOL.: A., E.; sltly in W.—BOIL.: $176^\circ C$.—USES: Techn., & as a solvent f. hard resins & nitrocellulose; manuf. photogr. lacquers & Zapon lacquer; cement for celluloid; binder f. water colors; manuf. dyes.

Dichloricide

Paradichlorbenzene Merck.—Colorl., fused, cryst. lumps.—SOL.: Eas. hot absol. A., B., C., E., CS_2 ; insol. W.—MELT.: $53^\circ C$.—BOIL.: Abt $174^\circ C$.—USES: Effective f. killing moths, roaches, flies, mosquitoes, butterflies, & o. insects. The vapor is absolutely non-inflam., does not cling to fabrics but disappears rapidly on exposure, & is harmless to human beings & animals. For preserv. furs, clothing, etc., place plenty of the Dichloricide in the clothes-closets, bureau drawers, trunks, chests, clothes & fur bags, etc., & where o. insects are troublesome. In the case of trunks & chests, the Di-

chloride may be placed in a small cloth bag inside near the top, so that the vapor, which is v. heavy, may work downwards.

α - α -DICHLORISOPROPYLALCOHOL CARBAMINATE.—see Aleudrin

DICHLORMETHANE—see Methylene Chloride

α -Dichloronaphthalene

$C_{10}H_6Cl_2[1:2] = 197.02$.—Yellowish, cryst. powd.—SOL.: A., E.—MELT.: $35^\circ C$.—BOIL.: $280^\circ C$.

α - γ -DICHLOR- β -OXYPROPANE—see Dichlorhydrin

Dicodid

Hydrocodeinon.— $C_{18}H_{21}NO_3 = 299.27$.—Fr. thebaine or codeine.—MELT.: 193° – $194^\circ C$.—ACTION: Midway betw. that of codeine & that of morphine.—USES: Wherever morphine or codeine indicated, partic. as preliminary to operations, to relieve pain following operations, to relieve cough in tuberc., etc.—DOSE: *Subcut.*, 0.015 Gm. ($\frac{1}{4}$ grn.) affords the same effect as 0.01 Gm. ($\frac{1}{2}$ grn.) morphine. Best given in the form of the acid tartrate & hydrochloride.

Dicodid Bitartrate

$C_{18}H_{21}NO_3 \cdot C_4H_6O_6 + 2\frac{1}{2}H_2O = 494.37$.—Wh. needles.—SOL.: Eas. W.; diffic. A.—ACTION & USES: As of Dicodid.

Dicodid Hydrochloride

$C_{18}H_{21}NO_3 \cdot HCl + H_2O = 353.75$.—Fine wh. needles.—SOL.: Eas. in W. & A.—ACTION & USES: As of Dicodid.

Dictamnus—Fr. Cod.

Cretan Dittany.—Whole plant, *Origanum Dictamnus*, L., *Labiatae*.—HABIT.: Crete; Levant.—CONSTIT.: Volat. oil.—USES: In fomentations, for scrofula.

Dicyandiamide

Cyanguanidine.— $NH_2 \cdot C(NH) \cdot NHCN = 84.07$.—Fr. cyanamide by alkalis.—Wh. cryst., or cryst. powd.—SOL.: W., A., alm. insol. E.—MELT.: Abt $205^\circ C$.—USES: Detect. Ni & Cu.

Dicyandiamidine Sulphate

Grossmann's Reagent (f. Ni); Biuretamide Sulphate; Guanylurea Sulphate.— $(NH_2 \cdot C \cdot [NH_2] \cdot NH \cdot CO \cdot NH_2)_2 \cdot H_2SO_4 + 2H_2O = 338.29$.—Fr. dicyandiamide & dil. H_2SO_4 by evap'n.—Wh. powd.—SOL.: Abt 20 cold, abt 3 boil., W. Softens at 193° – $195^\circ C$.—USES: Detect. & determ. Ni, & separ. Ni fr. Co & o. metals.

Didymium

This was the name given in 1842 by Mosander to what he thought to be an element, but which was found to consist of praseodymium (= 140.90) & neodymium (= 144.30).

DIETHIDENEAMMONIUM THIOCARBAMATE—see Carbothialdine

DIETHYL DIETHYLMALONATE—see Ethyl Diethylmalonate

DIETHYL DIMETHYLMALONATE—see Ethyl Dimethylmalonate

DIETHYL MALONATE—see Ethyl Malonate

DIETHYL OXALATE—see Ethyl Oxalate

DIETHYL SEBACATE—see Ethyl Sebacate

DIETHYL SUCCINATE—see Ethyl Succinate

Diethyl Sulphate

$(C_2H_5)_2SO_4 = 154.16$.—Fr. absol. A., & H_2SO_4 by dist'n in vacuo.—Colorl. to light yellowish liq.—MISC.: A., E.; insol. W.; decomp. on boil. w. W. or A. into ethylsulphuric acid & A. or E.—SP. GR.: 1.185 at $15^\circ C$.—BOIL.: Abt $200^\circ C$, w. decomp.—USES: In organic synthesis; manuf. intermediates.

DIETHYL SULPHIDE—see Ethyl Sulphide

DIETHYL TARTRATE—see Ethyl Tartrate

DIETHYL TRUXILLATE—see Ethyl α -Truxillate

DIETHYLACETAL—see Acetal

DIETHYLACETONE—see Diethylketone

DIETHYLALDEHYDE—see Acetal

Diethylamine

$(C_2H_5)_2NH = 73.12$.—Fr. dinitrodiethylaniline by KOH.—Colorl., inflam., strongly alkal. liq.—SOL.: A., W.—SP. GR.: 0.710 at $15^\circ C$.—BOIL.: $56^\circ C$.

do. Merck—33% Solut.

Alkaline liq. w. strong ammon. odor.—MISC. W., A., in all proport.

Diethylamine Hydrochloride

$(C_2H_5)_2NH \cdot HCl = 109.58$.—Colorl. cryst.—SOL.: W., A., C.—MELT.: $216^\circ C$.

DIETHYLAMINOETHYL-*p*-AMINO BENZOATE HYDROCHLORIDE—see Procaine Hydrochloride

DIETHYLAMINOPROPYLCINNAMATE HYDROCHLORIDE—see Apothesine

Diethylaniline

$C_6H_5N(C_2H_5)_2 = 149.18$.—Fr. ethylaniline & C_2H_5Br .—Yellowish to brownish liq.—SOL.: v. eas. A., C., E.—SP. GR.: 0.936 at $15^\circ C$.—BOIL.: Abt $216^\circ C$.—USES: Synthesis.

DIETHYLBROMACETAMIDE—see Neuronal

DIETHYLDIPHENYLCYCLOBUTANDIMETHYLATE—see Ethyl α -Truxillate

DIETHYLENEDIAMINE—see Piperazine

DIETHYLEDIENE DIITHIOCARBAMATE—see Carbothialdine

Diethylketone

Metacetone; Propione; Diethylacetone; Ethylpropionyl.— $C_2H_5 \cdot CO \cdot C_2H_5 = 86.11$.—Fr. sugar by dry distil. w. CaO ; also by distil. of calcium propionate.—Colorl., mobile liq.; acetone odor.—SOL.: W., v. eas. A., E.—BOIL.: $101^\circ C$.—ACTION: Hypn.—USES: Maniacal excit., melancholia w. stupor & hysteria.—DOSES: Hypnot., 0.5 cc. (8 M); in *mania*, 1.5–3 cc. (25–45 M).

DIETHYLMALONIC-ACID CHLORIDE—see Diethylmalonyl Chloride

Diethylmalonyl Chloride

Diethylmalonic-acid Chloride; Pentan-3,3-dimethylacetic Chloride.— $(C_2H_5)_2C:(COCl)_2 = 197.04$.—Colorl., to sltly yellowish, pungent liq.; fumes sltly in air.—SOL.: Eas. A., B., C., E.—BOIL.: $197^\circ C$.—SP. GR.: 1.20 at $15^\circ C$.—USES: Manuf. barbital.

DIETHYLMALONYLUREA—see Barbital; Veronal

DIETHYLMETAMINOPHENOLPHTHALEIN—see Rhodamine B

DIETHYLNITROSAMINE—see Nitrosodiethylin

Diethylphthalate

$C_6H_4(CO_2C_2H_5)_2 = 222.17$.—Fr. phthalic acid, A., & HCl.—Colorl., pract. odorl., oily liq.; bitter, disagreeable taste.—SOL.: A., E., petrol. E., & o. organic solvents.—SP. GR.: 1.1127 at $25^\circ C$; 1.136 at $15^\circ C$.—BOIL.: Abt $295^\circ C$.—USES: Denatur'g alcohol (2.5:100); inst. of camphor in manuf. celluloid; solvent f. cellulose acetate in manuf. varnishes & dopes; fixative f. perfumes.

DIETHYLSULPHONEDIMETHYLMETHANE—see Sulphonmethane

DIETHYLSULPHONEMETHYLETHYLMETHANE—see Sulphonethylethane

Diffluordiphenyl

Organic fluorine compound.— $C_6H_4F.C_6H_4F = 190.12$.—Colorl., cryst. powd.; arom. odor.—SOL.: Eas. A., C., E., oils; insol. W.—MELT.: $87^\circ C$.—SP. GR.: 1.04.—ACTION: Antisep.—USES: In cutan. dis. as dust. powd., pure, or in 10% oint. or w. talcum.—DOSE: 0.004–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.).

Digalen

Solut. Soluble Digitoxin Cloetta.—Solut. 1 part soluble digitoxin Cloetta in 1000 parts G. & 1600 W. w. 7.5% A.; ea. cc. = 0.0003 Gm. digitoxin.—Colorl., or sltly yellowish liq.—ACTION: Heart tonic and diuretic.—DOSE: 1 cc. (15 M) by mouth.—MAX. D.: 2 cc. (30 M) single; 6 cc. (90 M) p.d.—*Intraven. inj.*, 1 cc. (15 M) ev. $\frac{1}{2}$ –1 hr as necess.—Mktd in ampuls, tabl., hypoderm. tabl., & veter. tabl.

Digifolin

A digitalis prep. said to contain the total glucosides, chiefly digitalin & digitoxin, in the natural proportions.—Colorl., odorl. liq.; mktd in ampuls of 1 cc. = abt 0.1 Gm. digitalis leaf; also mktd as tablets.

Digipoten

Digitalis glucosides in sol. form w. milk sugar added to make the prep. equal to digitalis of good quality; cont's 0.3%–0.4% digitoxin.—Pale green powd.; odor & taste of digitalis.—SOL.: W.; 25% A.—USES & DOSES: As of digitalis.—Mktd in tabl.

DIGIPURATUM—see Digitan

Digitaline Merck

Glucoside fr. lvs Digitalis purpurea, L.—Wh., amorph. powd.; intens. bitter taste.—SOL.: W., A.—ACTION: Heart poison.—DOSE: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.).

Digitalin—True

Kiliani's, or Schmiedeberg's, Digitalin.— $C_{35}H_{56}O_{14} = 700.62$.—Wh., amorph. powd., or gran. masses.—SOL.: 1000 W., 100 A. (50%); eas. hot A.; alm. insol. C., E.—MELT.: Abt $217^\circ C$.—USES: As of digitalis.—DOSE: 0.002 Gm. ($\frac{1}{30}$ grn.) single at first, & incr. to 0.004–0.006 Gm. ($\frac{1}{15}$ – $\frac{1}{10}$ grn.); 0.01–0.015 Gm. ($\frac{1}{6}$ – $\frac{1}{4}$ grn.) p.d.

Digitalin—"French"—Pure, Amorph.

Chloroformic, or Homolle's, Amorphous Digitalin; Digitalinum Gallicum.—Fr. Digitalis purpurea, L.—Consists chiefly of Kiliani's digitalin.—Yellowish-wh. powd.; arom. odor., v. bitter taste.—SOL.: A., C., 2000 W., insol. E.—MELT.: $100^\circ C$.—USES, ANTID., &c.: As of digitoxin.—DOSE: 0.00025 Gm. ($\frac{1}{240}$ grn.) rapidly incr. to 0.002 Gm. ($\frac{1}{30}$ grn.).—MAX. D.: 0.006 Gm. ($\frac{1}{10}$ grn.) p.d.

do. Merck—"German"—Pure, Powd.

Fr. Digitalis purpurea, L.—Mixt. of digitalin (Schmiedeberg), amorph. digitonin, & digitalin; on boil. w. dil. acids, is split up into digitalose, digitaligenin, digitogenin, & amorph. cleavage products.—Yellowish-wh. powd.—SOL.: W., A.; alm. insol. E., C.—ACTION: Reliable Heart Tonic; Diur. Well adapted for hypod. use. Uniform physiologic action, & has but little tendency to cause gastric disorder.—USES: Cardiac diseases, dropsy, pulmon. edema, failure of memory, nocturnal insomnia, drowsiness during the day, cerebral softening.—DOSE: 0.006–0.03 Gm. ($\frac{1}{10}$ – $\frac{1}{2}$ grn.) 3 or 4 t.p.d., in pills, tabl., or subcut. In emergency, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) in 10–20 cc. ($2\frac{1}{2}$ –5 fl. dr.) normal NaCl solut. subcut.—ANTID.: Emetics, stom. siphon, tannic acid, nitroglycerin; morphine early, strophanthin later; alcoholic stimulants, camphor, mustard plaster, &c.—CAUT.: Poison!—NOTE: Digitalin "German" Merck is declared by competent authorities to be one of the most reliable digitalis prep. because its effects are always certain & uniform, & partic. because it is relatively free from cumulative action.

DIGITALIN AMORPHOUS } see Digitalin
DIGITALIN CHLOROFORMIC } "French"

DIGITALIN, CRYST.—see Digitonin

DIGITALINUM GALLICUM—see Digitalin "French"

DIGITALIN, HOMOLLE'S—see Digitalin, "French"

DIGITALIN KILIANI'S, or SCHMIEDEBERG'S—see Digitalin, True

Digitalis—U.S.P. X; B.P.; Fr. Cod.

Foxglove; Purple Foxglove; Fairy Gloves.—Dried lvs of Digitalis purpurea, L., Scrophulariaceae.—HABIT.: Southern & central Europe; cultiv. in U. S.—CONSTIT.: Digitoxin (0.2%–0.4%); digitonin; digitalin; "gitalin"; antirrhinic acid; digitalosmin; digitoleic acid; digitoflavon; resin; extractive; inosit; pectin.—ACTION: Cardiac Tonic; Vasc. Stim.; Diuret.; Anaphrodis.; Sedat.; Narcot.—USES: Cardiac diseases, pulm. edema, dropsy, &c.—DOSES: 0.06–0.2 Gm. (1–3 grn.) in powd. or infus.;

aver. dose 0.1 Gm. ($1\frac{1}{2}$ grn.).—Alcoh. extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); *Max. D.*: 0.12 Gm. (2 grn.) single, 0.3 Gm. (5 grn.) daily.—Fl'dextr., 0.06–0.2 cc. (1–3 M); *Max. D.*, 0.3 cc. (5 M) single, 1 cc. (15 M) daily.—Infus. (3:200), 4–15 cc. (1–4 fl. dr.).—Tr. (1:10), 0.3–2 cc. (5–30 M).—*ANTID.*: As of Digitalin, "German."

Digitalon

Alcohol-free, aseptic solut. of digitalis constituents.—*DOSE*: 0.5–1 cc. (8–15 M) hypoderm.

Digitalan—Purified Extract Digitalis

Introduced under the name Digipuratum.—A purified extract of digitalis made by the original Digipuratum process, & standardized accord. to original Gottlieb frog method. 0.1 Gm. digitan represents 0.1 Gm. of active digitalis leaf, = 8 frog units (ea. frog unit = the smallest quant. of the substance that will surely bring the heart of a 30 Gm. frog to a systolic standstill). Contains all the active digitalis glucosides except digitonin & saponins. Promptly absorbed & rapidly eliminated. Its uniformity of composition permits of very accurate dosage.—*USES*: Cardiac diseases, nephritis, arteriosclerosis, arterial hypertension, to support heart action in pneumonia.—*DOSE*: 0.1 Gm. ($1\frac{1}{2}$ grn.).

do. —Tincture—For Oral Administration

In vials of 12 cc. & 1 fl. oz. ea.; ea. cc. = 0.1 Gm. ($1\frac{1}{2}$ grn.) strongly active digitalis leaf.

do. —Sterilized Solution—Hypodermic

Ea. ampul cont. 1 cc. (15 M) steril. solut., = 0.1 Gm. ($1\frac{1}{2}$ grn.) strongly active digitalis leaf.

do. —Rectal Solution—15 cc. Each

Ea. cc. = 0.1 Gm. ($1\frac{1}{2}$ grn.) strongly active digitalis lvs.

do. —Tablets— $1\frac{1}{2}$ Grains Each

1 tablet = 0.1 Gm. ($1\frac{1}{2}$ grn.) strongly active digitalis leaf.

do. —Powder

0.1 Gm. ($1\frac{1}{2}$ grn.) = 0.1 Gm. ($1\frac{1}{2}$ grn.) strongly active digitalis lvs.

"DIGITIN"—see Digitonin

Digitol

A biologically & chemically standardized fat-free tincture of digitalis = U.S.P. tr. in drug strength.—Brownish-green liq. standardized to cont. not less than 0.025 Gm. digitoxin in 100 cc.—*USES*: As of digitalis.—*DOSE*: 0.3–1 cc. (5–15 M).

Digitonin Merck

$C_{55}H_{90}O_{29}$ = 1215.00.—"Digitin"; Digitalin, Cryst.—Glucoside fr. lvs Digitalis purpurea, L.—Wh., cryst. powd.; when dried sinters at 225° C., & decomp. above 235° C., without melting sharply.—*SOL.*: Sltly in A., C., E.; alm. insol. W.—Optically levogyrate.—No physiolog. action on heart.—*USES*: Test f. cholesterin (Windaus).

Digitoxin Merck

$C_{42}H_{66}O_{13}$ = 778.74 (Windaus); $C_{34}H_{54}O_{11}$ = 638.60 (Kiliani).—Most active glucoside fr. Digitalis purpurea, L.—Wh., odorl., bitter, cryst. powd.; on boil. w. dil. acids, is decomp. into digitoxose, $C_6H_{12}O_4$, & digitoxigenin, $C_{22}H_{36}O_4$.—*SOL.*: A., C.; also in a mixt. of 333 cc. G. (sp. gr. 1.25), 147 cc. W., & enough 95% A. to bring the whole to a sp. gr. 1.000 (1 Gm. = 50 drops); sltly sol. in E., W.—*ACTION*: Very prompt, reliable, powerful Heart Tonic, of uniform chem. compos. & therapeutic activity; 0.001 Gm. ($\frac{1}{60}$ grn.) digitoxin = in effect to 1 Gm. (15 grn.) digitalis lvs.—*USES*: Valvular lesions, myocarditis, congestive period of pneum., & in pneum. following operations.—*DOSES*: 0.00025–0.001 Gm. ($\frac{1}{240}$ – $\frac{1}{60}$ grn.) 3 t. daily, w. 0.2 cc. (3 M) C., 4 cc. (60 M) A., 45 cc. ($1\frac{1}{2}$ fl. oz.) W.—*Enema*, 0.0008 Gm. ($\frac{1}{80}$ grn.) w. 0.6 cc. (10 M) A., 120 cc. (4 fl. oz.) W., 1 to 3 t. daily.—*MAX. D.*: 0.001 Gm. ($\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) p.d.; accord. to Ph. Helv., 0.0003 Gm. ($\frac{1}{200}$ grn.) single, & 0.001 Gm. ($\frac{1}{60}$ grn.) p.d.—*ANTID.*: Stomach siphon; emetics; tannin; mustard plasters; nitroglycerin; morphine; alcoholic stimulants or camphor.

do. Merck—Tablets, $1/250$ Grain Each

DIGITOXIN CLOETTA—see Digalen

DIHYDROCODEINE—see Paracodin

DIHYDROGEN SULPHATE—see Acid Sulphuric

DIHYDROMORPHINE HYDROCHLORIDE—see Paramorphan

DIHYDROQUININE HYDROCHLORIDE—see Hydroquinine Hydrochloride

Dihydroresorcinol

$C_6H_8O_2$ = 112.09. — Fr. resorcinol by Na-amalgam & CO_2 .—Shin'g. wh. prisms.—*SOL.*: W., A., C.; v. sltly E., CS_2 , ligroin.—*MELT.*: 104°–106° C.—*ACTION*: Antiseptic.—Clinical data lacking.

o-DIHYDROXYANTHRAQUINONE—see Alizarin

DIHYDROXYCODEINON HYDROCHLORIDE—see Eucodal

DIHYDROXYDIPHENYLPHTHALIDE—see Phenolphthalein

DIHYDROXYETHANE—see Ethylene Glycol

DIHYDROXYMETHYLAMINOETHYLOLBENZENE—see Epinephrine

DIHYDROXYPHENYLETHYLMETHYLAMINE — see Epinine

DIHYDROXYPHTHALOPHENONE—see Phenolphthalein

Diiodaniline

Metadiiodaniline.— $C_6H_3NH_2$. I. I. [1:2:4] = 344.92.—Fr. aniline & ICl .—Brown cryst.—*SOL.*: C., E., hot A., ethyl acetate, CS_2 .—*MELT.*: 96° C.—*ACTION*: Antisep.; Dermic.—*USES*: *Extern.*, skin dis.

DIODETHANE—see Ethylene Diiodide

DIODOBRASSIDIC ACID ETHYLESTER—see Lipoiodine

DIIDOCAFFEINE—see Caffeine Triiodide

DIIODODITHYMOL—see Thymol Iodide

Diiodoform

Ethylene Tetraiodide, or Periodide; Tetraiodoethylene.— $\text{Cl}_2:\text{Cl}_2 = 531.69$.—Fr. acetylene diiodide & I; cont's 95.28% I.—Light-yellow, heavy, small, pract. odorl.; cryst.; charact. odor on expos. to light & turns brown.—SOL.: B., C., toluene, CS_2 ; sltly in A., E.; insol. W.—MELT.: 187°C .—ACTION: Antisept.—USES: Inst. of iodof. pure, or w. codeine or morphine, or 5% oint. in chancroids, furuncles, anthrax & burns, cervical metritis, laryngeal tubercul., etc.—CAUT.: Keep in the dark.

DIODOHYDROXYPROPANE—see Iothion

DIODOMETHANE—see Methylene Iodide

DIISOBUTYLCRESOL IODIDE—see Europhen

DIISOPROPYLIDENEACETONE—see Phorone

DIJODYL—see Periodyl

DILL, GARDEN—see Anethum

DIMAGNESIUM ORTHOPHOSPHATE—see Magnesium Phosphate, Dibasic

Dimazon

Diacetylaminoozotoluene; Pellidol. — $\text{CH}_3\text{C}_6\text{H}_4\text{N}:\text{N}:\text{C}_6\text{H}_3(\text{CH}_3)\text{N}(\text{CH}_3\text{CO})_2 = 309.27$.—Orange, cryst. powd.—SOL.: Eas. A., B., C., E., acetone, oils, fats, petrolatum; insol. W.—MELT.: 75°C .—USES: To stimulate proliferation of epithelial cells in burns, wounds, chron. ulcers, etc.; also in indolent varicose ulcers, ulcerating syphilides, tuberculous & diabetic ulcers, & ecz.—APPL.: As 2% petrolatum oint. or olive oil solut., or w. talcum as 5% dust-powd.

DIMETHOXYMETHANE—see Methylal

DIMETHOXYMETHYLDIHYDROISOQUINOLINE CHLORIDE—see Lodal

DIMETHYL CARBONATE—see Methyl Carbonate

DIMETHYL MALONATE—see Methyl Malonate

Dimethyl Sulphate Merck

$(\text{CH}_3)_2\text{SO}_4 = 126.12$.—Fr. methyl A. & conc. H_2SO_4 by dist'n.—Colorl. liq.—SOL.: v. eas. A., E.; alm. insol. W.—SP. GR.: Abt 1.333 at 15°C .—BOIL.: Abt 188°C w. decomp.—USES: Methylating agent; manuf. intermediates.—CAUT.: The vapors are poisonous! The prep. also has a powerfully caustic action on the skin.

DIMETHYL SULPHIDE—see Methyl Sulphide

Dimethylacetal

Ethylidenedimethylether.— $\text{CH}_3\text{CH}(\text{OCH}_3)_2 = 90.10$.—Fr. acetaldehyde, methyl A., & glac. acetic acid by heat.—Colorl. liq.—SOL.: W., A., C., E.—SP. GR.: 0.859 at 15°C .—BOIL.: 63°C .—ACTION: Anesth.—USES: Inst. of chloroform. Employed also as Mering's Mixt. (2 vol. dimethylacetal & 1 vol. C.).

Dimethylamine—Anhydrous

$(\text{CH}_3)_2\text{NH} = 45.07$.—Fr. methyl iodide by NH_3 .—Gaseous at ordin. temp. & press.—SOL.: v. eas. W.—BOIL.: 7.2°C .—Occurs in compressed liq. form in tubes, & also in aqu. solut.—USES: Organic synthesis; in rubber vulcanizers as accelerator; also f. attracting boll weevils to exterminate them.

do. Merck—33 $\frac{1}{2}$ % Solution

Aqu. solut. $(\text{CH}_3)_2\text{NH}$.—Colorl. liq.—Misc.: W. & A.

Dimethylamine Hydrochloride

$(\text{CH}_3)_2\text{NH}.\text{HCl} = 81.54$.—Wh., deliq., cryst. leaflets.—SOL.: v. eas. A., W.—MELT.: 168°C .—USES: Organic synthesis.—CAUT.: Keep fr. air.

DIMETHYLAMINOANTIPYRINE—see Amidopyrine

DIMETHYLAMINOANTIPYRINE-BUTYLCHLORALHYDRATE—see Trigemine

Dimethylaminoozobenzene Merck—Reagent

$\text{C}_6\text{H}_5\text{N}:\text{N}:\text{C}_6\text{H}_4\text{N}(\text{CH}_3)_2 = 225.21$.—Yellow cryst. leaflets.—SOL.: Eas. A.; insol. W.—TEST f. SENSITIVENESS: Add 1 or 2 drops 1:200 solut. in A. to 25 cc. W. The bright lemon yellow color should be changed to orange red by 1 drop 0.01*N* HCl; on add. 1 drop 0.1*N* NaOH yellow color restored.—USES: Determ. free HCl in gastric juice; microsc. ident. of fats; also as indicator (acids = red; alkalies = yellow) using a solut. of 0.5 Gm. in 100 cc. A.

Dimethylaminoozobenzene

Butter Yellow.— $\text{C}_6\text{H}_5\text{N}:\text{N}:\text{C}_6\text{H}_4\text{N}(\text{CH}_3)_2 = 225.21$.—Fr. diazobenzene chloride & dimethylaniline.—Sm., yellow leaflets.—SOL.: A., strong mineral acids, oils.—MELT.: 115°C .—USES: Fat & butter color.—The yellow solut. is reddened by acids.

p-Dimethylaminobenzaldehyde

Ehrlich's Reagent.— $(\text{CH}_3)_2\text{NC}_6\text{H}_4\text{CHO} = 149.14$.—Colorl. to light-yellow cryst.—SOL.: A., hot W.; spar. cold W.—MELT.: Abt 73°C .—USES: Differentiating betw. serum eruption & true scarlet fever; reag. f. indican (Böhme; Ehrlich; Ehrlich-Koziczakowsky), toad poison (Bufalini), colon bacteria (Dané), typhoid-coli (Haenen), anthranilic acid (Pawlewski), indole & skatol (Raciborski; Steensma), albumin (Rohde; Steensma), antipyrine (Steensma) & scarlatina (Umber).

DIMETHYLAMINO BENZOYL PENTANOL HYDROCHLORIDE—see Anesthaine

γ -DIMETHYLAMINO- α,β -DIMETHYLPROPYL-p-AMINO BENZOATE HYDROCHLORIDE—see Tutocaine

DIMETHYLAMINOPHENYLDIMETHYLPYRAZOLON — see Amidopyrine

Dimethylaniline Merck—Mono-free

$\text{C}_6\text{H}_5\text{N}(\text{CH}_3)_2 = 121.14$.—Fr. aniline, HCl, & methyl A.—Yellowish to brownish oily liq.; free fr. monomethylaniline.—SOL.: v. eas. A., C., E.—SP. GR.: 0.961 at 15°C .—BOIL.: Abt 193°C .—USES: Techn., as solvent, in manuf. vanillin, Michler's ketone, intermediates, &

methyl violet & o. dyes; also in organ. synthesis, & as test f. methyl A. (Aufrecht), methyl furfural (Fenton), H_2O_2 (Ilosvay), HNO_2 (Miller), alcohol (Rusconi), & formaldehyde (Trillat).

DIMETHYLANILINE ORANGE—see Methyl Orange

DIMETHYLBENZENE—see Xylene

DIMETHYLCARBINOL—see Alcohol *iso*-Propylic

DIMETHYLCARBINOLCHLOROFORM—see Chlorbutanol

DIMETHYLDIAMINOTOLUPHENAZINE HYDROCHLORIDE—see Neutral Red

DIMETHYL-DIMETHYLAMINO-AMINO-METHYLACRIDINIUM CHLORIDE—see Flavacid

DIMETHYLDIOXYPURINE—see Theobromine; Theophylline

DIMETHYLETHYLCARBINOL—see Amylene Hydrate

DIMETHYLETHYLCARBINOLCHLORAL—see Dormiol

Dimethylglyoxime Merck—Reagent

Diacetyldioxime; Alphasdimethylglyoxime. — $\text{CH}_3\text{C}(\text{:N.OH})\text{C}(\text{:N.OH})\text{CH}_3 = 116.10$.—Fr. isonitrosomethylethylketone & hydroxylamine hydrochlor. —Wh. acic. cryst., or cryst. powd. —SOL.: A.; v. diff. boil., alm. insol. cold, W. —MELT.: Abt 240°C . —TEST F. SUITABILITY AS REAG. F. NI: Diss. 0.24 Gm. Co-free cryst. $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$ (or 0.29 Gm. Co-free $\text{Ni}[\text{NO}_3]_2 \cdot 6\text{H}_2\text{O}$) in W. to make 10 cc.; heat to boil'g, then add solut. 0.25 Gm. dimethylglyoxime in 25 cc. A. & enough NH_4OH by drops till alkaline, then cool & filter; heat filtrate to boil'g & add more solut. dimethylglyoxime—no brown color, & no red ppt. on cool.—USES: Determ'g Ni; separat'g Ni fr. Co or Pd, & Pd fr. Sn, Au, Rh, & Ir; also as reag. f. detect. Ni in Co (Tschugaeff; Kraut; Brunck), ferrous salts (Slawik). —Sensit. to over 1: 400000; capable of detect. Ni in 5000 times its wt Co.

DIMETHYLHYDROQUINONE — see Hydroquinone-dimethyl Ether

DIMETHYLKETAL }
DIMETHYLKETONE } see Acetone

DIMETHYLNITROSAMINE—see Nitrosodimethylin

DIMETHOXYMETHANE—see Methylal

a-b-Dimethyloxamide—Symmetrical

(CONHCH_3)₂ = 116.10.—Fr. methylamine & oxalic ether.—Wh. cryst.—SOL.: Hot W., A.—MELT.: 210°C .

DIMETHYLOXYBENZENESULPHONPHTHALEIN—see *p*-Xylenolsulphonphthalein

DIMETHYLOXYQUINIZINE—see Antipyrine

DIMETHYLPARADIAMINO BENZENE, or DIMETHYL-PARAPHENYLENEDIAMINE—see Dimethyl-*p*-phenylenediamine

DIMETHYLPHENOL—see *m*-, *o*-, & *p*-Xylenol

Dimethyl-*p*-phenylenediamine Merck

Paraminodimethylaniline; Dimethylparadiaminobenzene.— $\text{N}(\text{CH}_3)_2[1]\text{C}_6\text{H}_4\text{NH}_2[4] = 136.15$.—Fr. dimethylaminoazobenzenesulphonic acid by (NH_4)₂S.—Brown, cryst. mass.—SOL.: W., A., C., E.—MELT.: 41°C .—BOIL.: 262°C .—USES: As test f. acids (Fischer), lignin (Wurster), & f. detect. olive pits in powd. pepper (Pabst).—CAUT.: Keep fr. light, air, & moisture.

Dimethyl-*p*-phenylenediamine Hydrochloride

$\text{C}_6\text{H}_4\text{NH}_2\text{N}(\text{CH}_3)_2 \cdot 2\text{HCl} = 209.09$.—Wh. to grayish-wh. hygrosc. cryst. powd.—SOL.: Eas. W.; less eas. A.—USES: In microsc., & as test f. Br (Jolles), ground olive pits (Juillet; Pabst), acetone & uric acid (Malerba), thallic salts (Marino), oxydases (Schultze), lignin, O_3 , & H_2O_2 (Wurster).

Dimethyl-*p*-phenylenediamine Sulphate

$\text{C}_6\text{H}_4\text{NH}_2\text{N}(\text{CH}_3)_2 \cdot \text{H}_2\text{SO}_4 = 234.23$.—Colorl. to brownish cryst.—SOL.: W.—USES: Detect. H_2S (Fischer).

DIMETHYLPIPERAZINE TARTRATE—see Lycetol

DIMETHYLPROPANEDIACID ETHYL ESTER—see Ethyl Dimethylmalonate

DIMETHYLPYRIDINE—see α -Lutidine

Dimethylresorcinol

Resorcinoldimethylether.— $\text{C}_6\text{H}_4(\text{OCH}_3)_2 = 138.12$.—Pale-red liq.—SOL.: A., E.—SP. GR.: 1.062 at 15°C .—BOIL.: 214°C .

DIMETHYLSAFRANINE CHLORIDE—see Methylene Violet

DIMETHYLSULPHOUREA

DIMETHYLTHIOCARBAMIDE } see Dimethylthiourea

Dimethylthiourea—Symmetrical

a-b-Dimethylsulphourea; Dimethylthiocarbamide.— $\text{CS}(\text{NHCH}_3)_2 = 104.16$.—Fr. methylthiocarbamide & methylamine.—Exceed. deliq. colorl. cryst.—SOL.: W., A., C.; stlty B., E.—MELT.: 61° – 62°C .

DIMETHYLNANTHINE—see Theobromine; Theophylline

DINITROAMINOPHENOL—see Acid Picramic

m-Dinitrobenzene

Metadinitrobenzene (or, -zol).— $\text{C}_6\text{H}_4(\text{NO}_2)_2[1:3] = 168.08$.—Fr. benzene by HNO_3 & H_2SO_4 w. heat.—Yellowish cryst.—SOL.: A., B., C.—MELT.: 90°C .—BOIL.: 297°C .—SP. GR.: 1.546 at 17°C .—USES: Manuf. metaphenylenediamine; test f. aldehydes & ketones (Bela v. Bittó), & glucose (Chavassien).

α -Dinitronaphthalene (So-called)

$\text{C}_{10}\text{H}_6(\text{NO}_2)_2[1:5] = 218.11$.—Fr. naphthalene by HNO_3 & H_2SO_4 .—Fine, yellow, cryst. need.—SOL.: v. diff. in A., & E.; eas. hot pyridine.—MELT.: 216°C .—USES: Manuf. intermediates, various dyes.

β -Dinitronaphthalene—(So-called)

$C_{10}H_6(NO_2)_2[1:8] = 218.11$.—Small, yellow plates.—**SOL.**: Difficul. in A. & B.; eas. in hot pyridine.—**MELT.**: 170° C.—**Manuf.** sulphur dyes.

 α -Dinitrophenol

Alphadinitrophenol; 1.Oxy-2.4 dinitrobenzene.— $C_6H_3(NO_2)_2OH[2:4:1] = 184.08$.—**Fr.** phenol, HNO_3 & H_2SO_4 by heat.—Yellow cryst. powd.—**SOL.**: A., B., C.; sltly cold, more eas. hot, W.—**MELT.**: 113° C.—**USES**: **Manuf.** azo & sulphur dyes; preserv. timber; **manuf.** picric acid, diaminophenol, etc.; also as indic.; f. prep'g the stock solut. accord. to Michaelis a satur. aqu. solut. is used; **PH** = 2.0–4.7.

 β -Dinitrophenol

Betadinitrophenol; 1.Oxy-2.6 dinitrobenzene.— $C_6H_3(NO_2)_2OH[2:6:1] = 184.08$.—Brownish-yellow, cryst. powd.—**SOL.**: Hot W.; eas. A., B., C., E.—**MELT.**: 63° C.—**USES**: As indic.; f. prep'g the stock solut. accord. to Michaelis a satur. aqu. solut. is used; **PH** = 1.7–4.4.

 γ -Dinitrophenol

Gammadinitrophenol; 1.Oxy-2.5 dinitrobenzene.— $C_6H_3(NO_2)_2OH[2:5:1] = 184.08$.—Yellow cryst. powd.—**SOL.**: Hot W.; eas. A., B., C., E.—**MELT.**: 105° C.—**USES**: As indic.; f. prep'g the stock solut. accord. to Michaelis a satur. aqu. solut. is used; **PH** = 4.0–5.0.

Dinitroresorcinol—Vicinal

$C_6H_2(OH)[1].NO_2[2].(OH)[3].NO_2[4] + 2H_2O = 236.11$.—**Fr.** 2-dinitroresorcinol by NO_3 .—Brownish-yellow cryst.—**SOL.**: W.; eas. A., C.—**MELT.**: 142° C.

do. —Paste

Solid Green O Paste; Chlorin; Dichinoyldioxime.— $C_6H_2(NO_2)_2O_2 + aq.$ —Grayish-brown mass.—**SOL.**: A.; dil. alkalies; sltly W.—**USES**: *Techn.*, dyeing fabrics mordanted w. iron a green color.

Dinitrotoluene

Dinitrotoluol.— $C_6H_3.CH_3(NO_2)_2[1:2:4] = 182.10$.—**Fr.** toluene by fum. HNO_3 & H_2SO_4 .—Yellow cryst.—**SOL.**: Hot A.; diffic. cold A. or E.—**MELT.**: 70° C.—**USES**: **Manuf.** intermediates, explosives, dyes; in dynamite to prevent freezing.

DINITROTOLUOL—see Dinitrotoluene

DINORMALBUTYL - *p* - AMINOBENZOATE-TRINITROPHENOL—see Butesin Picrate

DIOFORM—see Dichlorethylene

Diogenal

Dibrompropyldiethylbarbituric Acid Merck; Dibrompropyldiethylmalonylurea Merck.— $(C_2H_5)_2C(CO.NH.CO)CO.N.CH_2.CHBr.CH_2.Br = 384.04$.—**Cont.** 41.62% Br.—**Wh.**, bitter powd.—**SOL.**: A., E., ethyl acetate, warm B., & warm olive oil; v. sltly W.; 0.1 Gm. sol. in 20 cc. 1% solut. Na_2CO_3 w. shaking.—**MELT.**: 125° C.—**ACTION**: Efficient Sed.; also Hypn.;

less toxic than veronal.—**USES**: Melancholia, paranoia, dementia (præcox, paralytic, senile), restlessness, neurasth., nervous dis., epilep., & morphine habit.—**DOSES**: Mild cases of restlessness, 0.5 Gm. (8 grn.), & severe cases, 1 Gm. (15 grn.), 3 t.p.d. taken w. some warm liq.; as hypn., 1 Gm. (15 grn.).

Dionin

Ethylmorphine Hydrochloride, U.S.P.X., Merck.— $C_{17}H_{17}(NO)(OH)(OC_2H_5).HCl + 2H_2O = 385.79$.—**Wh.**, cryst., sltly bitter powd.—**SOL.**: 8 W., 22 A., sltly in C., E.—**MELT.**: Abt 123° C. w. decomp'n.—**ACTION**: Sedat.; Antispasm.; Analges.; Ocular Lymphagogue. Reported to produce no constipation, nausea, lassitude, or habituation. Efficient succedaneum f. morphine & codeine.—**USES**: *Intern.*, checking cough irritation in phthisis, chron. bronchitis, emphysema, asthma, to "abort coryza," morphinomania, painful affections, insomnia, laryngitis, influenza, pneumonia, enteritis, colics, cardialgia, myocarditis, whooping cough, gynecological operations, & also prior to chlorof. anesthesia.—*Extern.*, corneal affect., iritis, glaucoma, interstit. keratitis, dry & chron. conjunctival catarrh, atrophic rhinitis, opacity of vitr. humor.—**DOSES**: *Intern.* & subcut., 0.01–0.06 Gm. ($\frac{1}{6}$ –1 grn.) 2–3 t.p.d., in tabl., pill, or solut.; *hypnot.*, at evening, 0.03–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.); aver. dose 0.015 Gm. ($\frac{1}{4}$ grn.).—*Inj.* in morphinism, 0.06–0.12 Gm. (1–2 grn.) single; 0.2–1 Gm. (3–15 grn.) p.d.—*Extern.* (eye diseases), 1–2 drops of 5%–10% solut., or pure, to produce chemosis; 2 drops of an 0.5%–2% solut. 4 t.p.d. as analges.; in gynecol., 0.04 Gm. ($\frac{2}{5}$ grn.) in vaginal suppos.—**MAX. D.**: (except in morphinism) 0.08 Gm. ($1\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) daily.—**VETER. MED.**: *Intern.*, horses, 1 Gm. (15 grn.); calves, 0.5 Gm. (8 grn.); dogs, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.); *extern.*, in keratitis, iritis, etc., as in human med.—**ANTID.**: Same as for morphine & codeine.—[Literature on request.]—**NOTE**: Both Dionin and the Dionin Tablets are subject to the Harrison Narcotic Law.

do. Merck—Tablets, $\frac{1}{4}$ Grain Each

do. Merck—Tablets, 1 Grain Each

For hypoderm. & ophthal. use.

DIORTHOAMINOTHIOMBENZENE—see Intramine

Dioscorea—N.F. V

Wild Yam; Colic Root; Rheumatism Root.—Dried rhizome of *Dioscorea villosa*, L., Dioscoreaceæ.—**HABIT.**: North America.—**CONSTIT.**: Saponin; acrid resin.—**ACTION**: Antirheumat.; Antispasm. (in bilious colic); Diaphor.; Expector.; Uterine Tonic.—**DOSES**: 1–8 Gm. (15–120 grn.); aver. dose 4 Gm. (1 dr.).—**FL**dextr., 1–4 cc. (15–60 M).

Dioscorein

Resinoid fr. *Dioscorea villosa*, L. (Wild-Yam Root).—Brown, bitter powd.—**SOL.**: A.—**USES**: Bilious colic & rheum.—**DOSE**: 0.06–0.25 Gm. (1–4 grn.).

Dioxyacetone

Oxantin. — $(\text{CH}_2\text{OH}.\text{CO}.\text{CH}_2\text{OH})_2 = 180.13$. — Wh. cryst. powd.; charact. odor; sweet, cooling taste. — SOL.: Slowly but compl. in 1 W. at 20° C., but more eas. hot W.; 15 A.; alm. insol. E. — USES: As sweetener f. diabetic foods; also to combat diabetic coma. — DOSE: 30–50 Gm. (8–12½ dr.) per day; in coma, 15–30 cc. (4–8 fl. dr.) of a 10%–20% solut. intravenously.

DIOXYANTHRANOL—see Anthrarobin; Cignolin

DIOXYANTHRAQUINONE—see Istizin

α - β -DIOXYANTHRAQUINONE—see Alizarin

o -DIOXYBENZENE—see Pyrocatechin

p -DIOXYBENZENE—see Hydroquinone

DIOXYBENZOYL- o -BENZOICACID ETHYLESTER—see Resaldol

DIOXYBENZOPYRONE—see Esculetin

DIOXYCUMARIN—see Daphnetin

DIOXYDIAMINOARSENOBENZENE (DI) HYDROCHLORIDE—see Arsphenamine

DIOXYFLUORANE—see Fluorescein

DIOXYMETHYLANTHRAQUINONE—see Acid Chrysophanic

DIOXYNAPHTHALENE—see Naphthoresorcin

Dioxyphenylalanin

Dopa; 3,4 Dioxyphenyl- α -aminopropionic Acid. $\text{C}_6\text{H}_3(\text{OH})_2\text{CH}_2\text{CH}(\text{NH}_2)\text{COOH} = 197.14$. — Colorl. cryst.; optically inactive. — SOL.: W. — MELT.: 280° C. w. decomp. — USES: Detect'g dopaoxydase (in the skin), with which it affords a dark brown to black melanin like substce (dopamelanin).

DIOXYPHENYL- α -AMINOPROPIONIC ACID—see Dioxyphenylalanin

DIOXYPHENYLETHANOLMETHYLAMINE—see Epinephrine

DIOXPURINE—see Xanthine

DIOXYTOLUENE—see Orcin

DIOXYXANTHONE—see Euxanthone

DIPARA-ANISYLMONOPHENETYLGUANIDINE HYDROCHLORIDE—see Acofin

Dipentene

Diamylene; Cinene; Inactive Limonene; Dipentene; Cajeputene; Kautschin. — $\text{C}_{10}\text{H}_{18} = 136.18$. — Occurs in various ethereal oils, partic. in oil wormseed (Levant), together w. cineol. — Colorl. liq.; pleasant, lemon-like odor. — MISC.: A. — SP. GR.: 0.845 at 20° C. — BOIL.: 175°–176° C. — USES: As solvent.

DIPENTENE DIHYDROCHLORIDE—see Terpene Dihydrochloride

DIPENTENEGLYCOL—see Terpin Hydrate

DIPENTINE—see Dipentene

DIPHENOLCRESOLCARBINOL ANHYDRIDE—see Acid Rosolic

DIPHENOPYRANOL—see Xanthidrol

Diphenyl—Cryst.

Phenylbenzene. — $\text{C}_6\text{H}_5.\text{C}_6\text{H}_5 = 154.14$. — Fr. brombenzene by Na, or passing benzene vapors through a red-hot iron tube. — Wh. or sltly colored leaflets; pleas., pecul. odor. — SOL.: Eas. A., E. — MELT.: 77° C. — BOIL.: 255° C.

Diphenyl Carbonate

$\text{C}_6\text{H}_5.\text{O}.\text{CO}.\text{O}.\text{C}_6\text{H}_5 = 214.15$. — Fr. phenol & COCl_2 . — Lustr., colorl. needles. — SOL.: Eas. hot A., E., or B.; insol. W. — MELT.: 78° C. — BOIL.: 301°–302° C.

Diphenylacetamide

Phenylacetanilid; Acetyldiphenylamine. — $(\text{C}_6\text{H}_5)_2\text{N}.\text{CH}_3\text{CO} = 211.18$. — Fr. diphenylamine & acetic anhydride. — Wh. cryst. powd. — SOL.: Eas. A., more diffic. E.; sltly cold W. — MELT.: 102° C.

Diphenylamine Merck—Reagent

$(\text{C}_6\text{H}_5)_2\text{NH} = 169.16$. — Wh. cryst. — SOL.: Eas. A., B., E., sltly W. — MELT.: Abt 53° C. — BOIL.: Sltly above 300° C.

MAXIMUM OF IMPURITIES

Non-vol. Matter	0.030%
Nitrate (N_2O_5)	0.000%
Aniline	0.010%

USES: In solut. (0.5 Gm. + 100 cc. H_2SO_4 + 20 cc. W.) as test f. nitrates; reag. f. curcuma (Bell), NO_3 (Caron; Cimino; Hofmann; Kopp; Möslinger; Piñerua; Spiegel; Tillmans; Withers-Ray), formaldehyde (Grafe; Richmond-Boseley), levulose (Jolles), silver peroxide (Mulder), ClO_3 (Piñerua), NO_2 (Piñerua; Raikow; Tillmans), saccharose (Rothenfuser), Cl (le Roy), silk (Truchot), & lignin (Wolesky).

Diphenylamine Merck—Pure

Phenylaniline. — $(\text{C}_6\text{H}_5)_2\text{NH} = 169.16$. — Fr. aniline blue (triphenylosaniline) by dry dist'n. — Light-yellow, cryst. mass. — SOL.: A., Acids; sltly W. — USES: Manuf. aniline dyes; stabilizing nitrocellulose explosives & celluloid.

Diphenylamine Hydrochloride

$(\text{C}_6\text{H}_5)_2\text{NH}.\text{HCl} = 205.62$. — Wh. cryst. — SOL.: Eas. A., W. — USES: Test f. HNO_3 .

DIPHENYLAMINE ORANGE—see Tropaeoline OO

Diphenylamine Sulphate

$(\text{C}_6\text{H}_5)_2\text{NH}.\text{H}_2\text{SO}_4 = 267.23$. — Gray to yellowish powd. — SOL.: Eas. A.; sltly B.; insol. W. — MELT.: 150°–151° C. — USES: Test f. NO_3 .

DIPHENYLCARBAMIDE CHLORIDE—see Diphenylurea Chloride

Diphenylcarbazine

$(\text{NH}.\text{NH}.\text{C}_6\text{H}_5)_2\text{CO} = 242.21$. — Wh. cryst. — SOL.: Eas. hot A.; sltly hot W.; insol. E. — MELT.: 166°–168° C. — USES: As indicator in titrat'g Fe (Barnebey-Wilson; Brandt); as test f. metal salts (Cazeneuve), Mo (Lecoq), HgCl_2 (Moulin), aldehydes (Oddo-Ferrari), emetine (Peroni).

DIPHENYLENDANILODIHYDROTRIAZOL—see Nitron

o-DIPHENYLENE-ETHYLENE—see Phenanthrene

DIPHENYLENEKETONE—see Anthraquinone

o-DIPHENYLENEMETHANE—see Fluorene

DIPHENYLETHYLENE—see Stilbene

α -Diphenylglyoxime

α -Benzildioxime.— $C_6H_5 \cdot C(N.OH) \cdot C(C_6H_5) \cdot (N.OH) = 240.16$.—Fr. benziloxime & hydroxylamine hydrochlor. —Colorl., microcryst. leaflets.—SOL.: v. diffic. A.; alm. insol. W.—MELT.: $237^\circ C$.—USES: Test f. Ni in presence of Co & o. metals; sensit. 1:5,000,000.

Diphenylhydrazine—Asymmetric

$(C_6H_5)_2:N.NH_2 = 184.17$.—Yellowish-brown liq. or cryst. mass.—SOL.: Eas. A., E.; alm. insol. W.—MELT.: $34^\circ C$.—USES: As of hydrochlor.

α -Diphenylhydrazine Hydrochloride

Monoaminodiphenylamine Hydrochloride.— $(C_6H_5)_2:N.NH_2.HCl = 220.64$.—Fr. nitrosodiphenylamine, Zn-dust, & glac. acetic acid.—Wh. to grayish-wh., cryst. powd.—SOL.: Sltly W., eas. A.—USES: Test f. lactose (Graafe), & glucose (Stahel); not f. o. sugars & carbohydrates.

DIPHENYLMIDE—see Carbazole

DIPHENYLKETONE—see Benzophenone

DIPHENYLKETONE OXIDE—see Xanthone

Diphenylmetaphenylenediamine

$C_6H_5NHC_6H_4C_6H_5NH[1:3] = 260.23$.—Fr. resorcin & aniline by heat w. $CaCl_2$ & $ZnCl_2$.—Colorl., cryst.—SOL.: Hot A.; insol. W.—MELT.: $95^\circ C$.—USES: Organic synthesis.

Diphenylmethane

Benzyl Benzene.— $CH_2(C_6H_5)_2 = 168.16$.—Fr. benzyl chloride & benzene by heat. w. Zn-dust.—Cryst. mass of long, colorl. need.—SOL.: Eas. A., C., E.—MELT.: 26° – $27^\circ C$.—BOIL.: 261° – $262^\circ C$.—USES: Manuf. benzophenone.

DIPHENYLMETHANON—see Benzophenone

DIPHENYLMETHYLAMINE—see Methylidiphenylamine

DIPHENYLOXAMIDE—see Oxanilide

DIPHENYLSULPHONE—see Sulphobenzide

a-b-DIPHENYLTHIOUREA—see Sulphocarbaniide

Diphenylurea—Symmetrical

Carbanilid.— $(NH.C_6H_5).CO.(C_6H_5.NH) = 212.18$.—Fr. phenylcarbamide & aniline by heat.—Prisms.—SOL.: v. eas. A., E.; v. sltly W.—MELT.: $235^\circ C$.—BOIL.: $260^\circ C$.

Diphenylurea Chloride

Carbanilid Chloride; Diphenylcarbamide Chloride.— $(C_6H_5)_2N.CO.Cl = 231.61$.—Wh., cryst. leaflets.—SOL.: A.; hot W.—MELT.: $85^\circ C$.

DIPHThERIA ANTITOXIN—see Antitoxin, Diptheria

DIPLOSAL—see Salysal

DIPOTASSIUM HYDROGEN PHOSPHATE—see Potassium Phosphate, Dibasic

DIPPEL'S OIL—see Oil, Animal, Rectified

Dipropäsin

$CO(NH.C_6H_4.COOC_3H_7)_2 = 384.31$.—Obt. by condens. 2 molecules of propäsin (*q.v.*) by means of $COCl_2$.—Colorl., odorl., tastel. powd.—SOL.: Eas. A., difficul. in o. organic solvents; insol. W.—MELT.: 171° – $172^\circ C$.—ACTION: Loc. Anesth.—USES: Colicky gastric & intest. pains, etc.—DOSE: Up to 0.5 Gm. (8 grn.) as intest. & gastric anesth.; 0.5–0.6 Gm. (8–10 grn.) as sed.; 1–2 Gm. (15–30 grn.) as hypn.

Dipropylamine—Normal

$(C_3H_7)_2NH = 101.16$.—Fr. propyl iodide & alcoh. NH_3 by heat.—Colorl. liq.; amm. odor.—SOL.: v. eas. A.; sltly in W.—SP. GR.: 0.743 at $15^\circ C$.—BOIL.: $110^\circ C$.—USES: Organic synthesis.

Dipropylketone

Butyrone; Heptanon [4].— $C_3H_7.CO.C_3H_7 = 114.15$.—Fr. calc. butyrate by dist'n.—v. refract., colorl. liq.; pleas. odor; burn. taste.—SOL.: v. eas. A., E.—SP. GR.: 0.820 at $15^\circ C$.—BOIL.: $144^\circ C$.

DIPROPYLMALONYLUREA—see Propylal

DIPROPYLMETHANE—see Heptane

DIQUININE CARBONIC ETHER—see Aristochin

DIRECT RED—see Congo Red

DIRECT VIOLET—see Gentian Violet BBB

Diresorcinol

Tetraoxydiphenyl.— $(OH)_2.C_6H_3.C_6H_3.(OH)_2 + 2H_2O = 254.17$.—Fr. resorcinol & NaOH by fus.—Wh. to sltly yellowish, cryst. powd.—SOL.: A., hot W.—MELT.: $310^\circ C$.

"DIRESORCINOLPHTHALEIN"—see Fluorescein

DISODIUM ARSEN(I)ATE—see Sodium Arsenate

DISODIUM DIAMINODIHYDROXYARSENOBENZENE-DIMETHYLENESULFONATE—see Sulpharsphenamine

DISODIUM DIBROMOXYMERCURYFLUORESCIN—see Mercurochrome-220 Soluble

DISODIUM DIHYDROXYROPHOSPHATE—see Sodium Pyrophosphate (Acid)

DISODIUM HYDROXYMERCURYFLUORESCIN—see Flumerin

DISODIUM HYDROXYMERCURYALICYLOXYACETATE—see Mercurosol

DISODIUM METHYLARSINITE—see Sodium Methylarsenate

DISODIUM MONOETHYLARSONE—see Monarsone

DISODIUM ORTHOPHOSPHATE—see Sodium Phosphate, Dibasic

DISODIUM PHENOLTETRABROMPHTHALEINSULFONATE—see Bromsulphalein

DISPERMIN—see Piperazine

DISTHEN—see Rhaetizite

DISULPHURYL CHLORIDE—see Pyrosulphuryl Chloride

DITA BARK—see Alstonia

Ditaine Merck—Cryst.

Echitamine.— $C_{22}H_{28}N_2O_4 + 4H_2O = 456.41$.—Alkaloid fr. bark *Alstonia scholaris*, R. Br. (Dita bark).—Colorl. cryst.—SOL.: W., A., C., E.; stlty in B.—MELT.: 206° C. w. decomp.—USES, &c.: As of Curare.

Ditaine Sulphate

($C_{22}H_{28}N_2O_4$). $2H_2SO_4 = 866.78$.—Wh., cryst. powd.—SOL. W.

DITHYMOL DIIONIDE—see Thymol Iodide

DITTANY, CRETAN—see Dictamnus

Diuretin

Theobromine-Sodium Sodium Salicylate.— $C_7H_7N_4O_2Na + C_6H_4(OH)COONa = 362.20$.—White, amorph., hygrosc. powd.; cont's abt 50% theobromine.—Decomp. on expos.—SOL.: Eas. W., hot dil. A., & soda solut.—ACTION: Diuret.—USES: Heart dis.; nephr., espec. of scar. fever; dropsy; acute artic. rheumat.; dyspnea & coughs.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.—MAX. D.: 1 Gm. (15 grn.) single; 8 Gm. (120 grn.) daily.—INCOMPAT.: Acids, bicarbonates, borates, chloral hydrate, $FeCl_3$, phosphates.—CAUT.: Keep fr. air!

do. Tablets, 8 Grains Each

DIVANADYL TETRACHLORIDE—see Vanadium Chloride

Dobbin's Solution—Test f. Caustic Alkalies in Carbonates

Diss. 1 Gm. KI in 50 cc. W. & add an aqu. 1:20 solut. $HgCl_2$ until ppt. persists; filter & add to filtrate 0.2 Gm. NH_4Cl & enough solut. NaOH to just cause pptn; filter, & add W. to make 200 cc.—Traces of NaOH in Na_2CO_3 develop a yellow color on add'g test solut.

DOCK, CURLED, or YELLOW—see Rumex

DOG BUTTONS—see Nux Vomica

DOG GRASS—see Triticum

DOGBANE—see Apocynum; Apocynum Androsæmifolium

DOGWOOD—see Cornus

DOGWOOD, ALDER or BLACK—see Frangula

DOGWOOD, JAMAICA, or WHITE—see Piscidia

DOGWOOD, ROUND-LEAVED—see Cornus Circinata

Dolomite—Mineral

Pearl Spar.—OCCUR.: Eastern U. S. (Ala. to Conn.); Eastern Alps.—COMPOS.: $(CO_3)_2Ca$, Mg.—CRYST. SYST.: Hexag. rhombohedr.—LUSTER: Vitr. inclining to pearly in some var.—COLOR: Wh., reddish, or greenish-wh., also rose-red, green, brown, gray, or black.—FRACT.: Subconch.—HARDN.: 3.5–4.—SP. GR.: 2.8–2.9.—USES: As building stone, prep. mortar, & manuf. of CO_2 & mineral waters.

DONOVAN'S SOLUTION—see Solution Arsenous & Mercuric Iodide

DOOM BARK—see Sassy Bark

DOPA—see Dioxiphenylalanin

Dormiol—50% Solution

Amylenechloral; Dimethylethylcarbinolchloral.— $CCl_3.CHOH.O.C(CH_3)_2C_2H_5 = 235.52$.—Colorl. liq.—SOL.: A., C., E., fixed oils; insol. cold W.—SP. GR.: 1.24 at 15° C.—ACTION: Hypn.; Sed.—USES: Epilepsy & sleeplessness; pulm. tuberc., neurasth., & insomn. of aged & in arteriosclerosis; cholera, pneum., hepatic cirrhosis, angina pect., tabes; melancholia, depression, hypochondria, psychic excitem., hallucinations.—DOSES: In insom., 0.5–1 cc. (8–15 M); in mania, 1.5–3 cc. (25–45 M).

Dover's Powder Merck—U.S.P. X

Powd. Ipecac & Opium.—Ipecac & opium ea. 1, lactose 8 (= 43.75 grn. opium per oz.); (the B.P. orders K_2SO_4 inst. of lactose).—ACTION: Anod.; Diaph.—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose 0.3 Gm. (5 grn.).

Dragendorff's Solution—Test for Alkaloids

Solut. Bismuth & Potassium Iodide.—Diss. 8 Gm. bism. subnitrate in 20 cc. HNO_3 (sp. gr. 1.18) & pour grad'ly into a conc. aqu. solut. 22.7 Gm. KI. When all KNO_3 formed has pptd, pour off & add to the liq. enough W. to make 100 cc.—USES: Detect'g alkaloids (affords w. most of them a reddish-yellow flocc. ppt.).—CAUT.: Keep in the dark in well-corked bottle. Do not dilute till needed.

Dragon's Blood

Sanguis Draconis.—Resin fr. fruit of Calamus (*Dæmonorops*) Draco, Willd., Palmæ.—HABIT.: South Asiatic Islands (Sumatra & Java).—CONSTIT.: Dracocalban; dracoresen; benzoic-acid-dracoresinotannolester; benzoylacticacid-dracoresinotannolester; draconin. — USES: Techn., in plasters, lacquers, tooth-powders, dentifrices; coloring varnishes & paints, marble & stoneware; lacquering gold.

DROP CHALK—see Calcium Carbonate

Drosera—N.F. V

Common, or Round-leaved, Sundew; Youthwort.—Airdried flowering plant, *Drosera rotundifolia*, L., freq. mixed w. closely allied spec. *D. anglica*, Hudson, & *D. longifolia*, L., Droseraceæ.—HABIT.: Europe; Asia; N. America, south to Florida & California.—CONSTIT.: Peptonizing ferment; coloring matter; tannin.—ACTION: Diuret.; Antispasm.—USES: Intern., partic. in epil. & asthma; also in whoop-cough, chron. bronchitis, catarrh, dyspepsia, incipient phth., & chronic cough.—Extern., as epispastic f. warts.—DOSES: 0.6–6 Gm. (10–90 grn.); aver. dose 4 Gm. (1 dr.).—Extr., 0.06–0.3 Gm. (1–5 grn.).—Fl'dextr., 0.3–4 cc. (5–60 M).—Tr. 0.6–8 cc. (10–120 M).

DRUMSTICK—see Cassia Fistula

DRY ICE—see under Acid Carbonic

Duboisia

Corkwood Elm; Orungurabie; Ngmoo.—Bark & lvs of *Duboisia myoporoides*, R. Brown, Solanaceæ.—HABIT.: Australia & New Guinea.—CONSTIT.: Duboisine (identical w. hyoscyamine, Ladenburg); hyoscine; & o. alkaloids.—

ACTION: Mydr.; Antispasm.; Hypnot.—**USES:** Instead of belladonna & hyoscyamus.—*Techn.*, source of duboisine.—**DOSES:** Lvs, 0.3–0.6 Gm. (5–10 grn.).—Extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—Fl'dextr., 0.3–0.6 cc. (5–10 M).—**ANTID.:** Emetics, stomach siphon, tannin, animal charcoal followed by an emetic; brandy, ammonia, artif. respiration.

Duboisine Merck—Cryst.

Identical w. Hyoscyamine, Ladenburg.— $C_{17}H_{23}NO_3 = 289.28$.—Fr. lvs of Duboisia myoporoides, R. Br.—Microsc., wh., felted need.—**SOL.:** A., C., E.; sltly in W.—**MELT.:** 106°–108° C.—**ACTION:** Sed.; Hypn.; Mydr.—**USES:** Mental dis., insanity, paralysis agitans; not used topically because insol.—**DOSE:** 0.0002–0.001 Gm. ($\frac{1}{300}$ – $\frac{1}{60}$ grn.).—**MAX. D.:** 0.001 Gm. ($\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) daily.—**ANTID.:** Emetics, stomach-siphon, pilocarpine, muscarine.

do. —Amorph.

Yellow, thick, syrupy, liq. alkaloid fr. lvs Duboisia myoporoides.—**SOL.:** A., C., E.—**DOSE:** 0.0002–0.001 Gm. ($\frac{1}{300}$ – $\frac{1}{60}$ grn.).

Duboisine Hydrobromide

Fr. amorph. duboisine.—Yellowish, coarse, v. hygrosc. powd.—**SOL.:** W., A.—**USES & DOSE:** As of duboisine.

Duboisine Hydrochloride

Fr. amorph. duboisine.—Yellowish, coarse, v. hygrosc. powd.—**SOL.:** W., A.—**USES & DOSE:** As of duboisine.

Duboisine Sulphate Merck

Fr. amorph. duboisine.—Yellowish, hygroscop., cryst. powd.—**SOL.:** W., A.—**ACTION:** Mydriatic; Sedat.; Hypnot.—**USES:** Chiefly as mydr.; much stronger than atropine.—*Intern.*, in conditions of excitement, psychic disturbances, progressive paral., senile dementia, acute melancholia, epilepsy, night sweats, sleeplessness.—**APPL.:** In 0.2% to 0.8% solutions.—**DOSE:** Men, 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.); women, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.).—*Subcut.*, as hypn. & sed., in psychic dis., 0.0002–0.001 Gm. ($\frac{1}{300}$ – $\frac{1}{60}$ grn.), B.P.C.—As mydriatic, 0.25%–1% solut.

DUDHA—see Hemidesmus

DUHNULBALSAM—see Balsam, Mecca

Dulcamara—N.F. V; B.P.C.

Bittersweet; Woody Nightshade; Scarlet Berry.—Dried stems of Solanum Dulcamara, L. Solanaceæ.—**HABIT.:** Europe; western Asia; northern Africa; natural in U. S.—**CONSTIT.:** Solanecine (abt 1%); dulcamarin; dulcamaric & dulcamaretic acids.—**ACTION:** Alter.; Diaphor.; Diuret.—**USES:** Dropsy, diseases of respir. organs, lepra, psoriasis, pityriasis, & o. cutan. diseases; chron. catarrh, & rheum.—

DOSES: aver., 4 Gm. (60 grn.).—Extr., 0.3–1.3 Gm. (5–20 grn.).—Fl'dextr., 2–8 cc. (30–120 M).

DULCIN—see Sucrol

Dulcit Merck

Dulcitol; Melampyrit; Dulcose; Euonymit.— $C_6H_8(OH)_6 = 182.14$.—Hexatomic alcohol (hexite), a sugar fr. Melampyrum nemorosum, L., & o. species of Melampyrum, & of Euonymus.—Wh., cryst. powd.; sltly sweet taste; optically inactive.—**SOL.:** Abt 30 W.; sltly A.—**MELT.:** Abt 188° C.

DULCITOL } see Dulcit
DULCOSE }

DUODENIN—see Secretin

DUOTAL = Guaiacol Carbonate

Duotonal

Mixt. eq. parts calcium & sodium glycerophosphates.—Wh. powd.—**ACTION:** Nerve Tonic.—**DOSE:** 0.3–0.6 Gm. (5–10 grn.).

Dupasquier's Solution—Test for Organic Matter in Water

Aqu. solut. gold chloride.—On boil., the solution ppts organic matter w. separation of Au & development of bluish-violet color.

Durene

Durol; Symmetrical Tetramethylbenzene (-zol).— $C_6H_2(CH_3)_4[1:2:4:5] = 134.16$.—Fr. brom-pseudocumene, CH_3I , & Na, or fr. o-xylene, CH_3Cl , & $AlCl_3$.—Colorl. cryst.; camphor. odor.—**SOL.:** Eas. A., E., B.—**MELT.:** 80° C.—**BOIL.:** 190° C.

DUROL—see Durene

DUTCH DROPS—see Oil Turpentine, Sulphurated

DUTCH LIQUID—see Ethylene Chloride

DUTCH LIQUID, MONOCHLORINATED—see Trichlorethane

DUTCH ROSE—see Rose

DWALE—see Belladonna Leaves

DWARF BAY—see Mezereum

DYER'S SAFFRON—see Carthamus

Dymal

A mixt. of salicylates, chiefly Di, with La, Ce, obt'd as a by-product in manuf. incandescent mantles.—Gran., pinkish, odorl. powd.—**ACTION:** Antisept.; Siccative.—**USES:** Wounds, burns, various skin diseases, erysipelas, hyperidrosis, bed sores, ulcers, gangrene, &c.—**APPL.:** As dusting powd., or in 10% oint. w. lanum.

Dyslysin

Cholic Acid Anhydride.— $C_{24}H_{36}O_3 = 327.41$.—Decomp.-prod. of cholic acid.—Yellowish powd.—**SOL.:** E.; sltly in boiling A.; insol. W.—**MELT.:** Above 140° C.

E

EAGLE VINE—see Condurango

Earth, Infusorial

Siliceous, or Diatomaceous, Earth; Fossil Flour; Kieselguhr.—Siliceous shells of various species of Diatoms (Gallionella, Melosira, Navicula, Synedra, Gomphonema, &c.).—Wh. to reddish-wh. powd.; capable of taking up & holding 4 times its wt. of W.—Uses: Largely as an absorbent f. liquids, & f. dispensing fl'dextr's in powd. form (equal parts yield a dry powd.). Also as constituent of & excipient f. pill masses.—Techn., clarifying sugar & oils; filtering liquids; mfg. heat insulators, fire brick, & fire- & acid-proof packing materials; filler f. paper, paints, etc.; mfg. fiber products & dynamite; in putz pomades & o. metal polishes.

EARTH WAX—see Ceresin

EAST INDIA ROOT—see Galanga

EAST INDIAN BALMONEY—see Chirata

"EAST INDIAN COPAIBA"—see Balsam, Gurjun

EASTER FLOWER—see Pulsatilla

Eber's Solution—Test for Spoiled Sausage

Mixt. of 10 Gm. HCl, 30 Gm. A., & 10 Gm. E.—A small piece of sausage held over a few drops of the solution in a wide test-tube gives rise to a cloud (due to NH_3) if sausage is decomp.

ECBOLINE—see Cornutine; Ergotoxine

Ecgonine

Betaoxymethylbetapyridylpropionic Acid. —
 $\text{CH}_2.\text{CH}(\text{N}[\text{CH}_3]).\text{CH}_2(\text{CH}.\text{OH}).(\text{CH}.\text{CO}.$

$\text{OH}).\text{CH}.\text{CH}_2 + \text{H}_2\text{O} = 203.19.$ —Basic decomp. prod. of cocaine.—Wh., monocl. prisms; sltly bitter taste.—SOL.: A.; 5 W.; insol. E.—MELT.: $198^\circ\text{C}.$

Ecgonine Hydrochloride

$\text{C}_9\text{H}_{15}\text{NO}_3.\text{HCl} = 221.64.$ —Triclin., wh. tablets.—SOL.: W.; sltly in A.—MELT.: $246^\circ\text{C}.$

Echinacea—N.F. V

Cone Flower; Black Sampson; Purple Cone Flower.—Dried rhizome & roots of *Brauneria pallida*, Britton, or *B. angustifolia*, Heller, Compositae.—HABIT.: North America.—CONSTIT.: Acid resinous substance.—ACTION: Antisept.; Aphrodis.; Febrif.; Analges.; Alternative.—Uses: Scrofula, rheum., & syph.—Extern., as dressing in malignant carbuncle, & mammitis; also in cutan. dis.—DOSES: 0.6–4 Gm. (10–60 grn.); aver. dose 1 Gm. (15 grn.).—Fl'dextr., 0.6–4 cc. (10–60 M). 20–60 drops of a 1:3 aqu. solut. taken intern., & the solut. also applied to the glans penis, is said to relieve the erections of pseudo-impotence.

ECHITAMINE—see Ditaïne

ECLIPSE RED—see Benzopurpurine 4B

Edestin

A globulin, constituting abt 80% of the proteins of hemp (also cotton & linseed) seed, &

obtd by treat'g the defatted seed w. 5% NaCl solut.—Cryst. powd.—SOL.: W., dil. mineral acids.—Uses: Intern., as galactagogue.—Techn., in quant. determ'n of pepsin in gastric juice (edestin is converted by HCl into globan [edestan], which is not affected by heat, but which is rendered turbid or is pptd as flocks by NaCl; if the edestin is first digested w. pepsin in HCl solut., however, the NaCl does not cause pptn).

EGG PRESERVER = Sodium Silicate Solution

EGERAN—see Vesuvianite

EGYPTIAN PRIVET—see Henna

Ehrlich's Diazo Test—For Pathological Urine

No. 1.—1 Gm. $\text{NaNO}_2 + \text{W.}$ to make 200 cc.; No. 2.—5 Gm. sulphanilic acid, 50 cc. HCl, & W. to make 1000 cc.; for use mix 1 cc. solut. No. 1 w. 50 cc. solut. No. 2.—Other methods of testing are as follows: (1) Shake a mixt. of 30 to 50 cc. HNO_3 & 500 cc. W. w. sulphanilic acid, then add a few granules NaNO_2 dissolved in a little W. On shak. pathological urine (phthisis, typhoid, measles) w. an eq. vol. solution & a little NH_4OH , the liquid & the foam are colored red.—(2) a: 2.5 Gm. sulphanilic acid, 25 cc. HCl, & 100 cc. W.; b: 0.5 Gm. NaNO_2 , 100 cc. W. For use mix 1 cc. solut. b w. 49 cc. solut. a.—(3) 1 Gm. sulphanilic acid, 15 cc. HCl, 0.1 Gm. NaNO_2 , & W. to make 1000 cc.

do. Hematoxylin-Glycerin

Solut. 3 Gm. hematoxylin in 90 Gm. A., mixed w. an alum-saturated solut. of 6 Gm. glacial acetic acid, 120 Gm. G., & 120 cc. W.—Uses: Staining nuclei & schizomycetes.

do. Neutral-Red Stain—For Bacteria

1% solut. Neutral Red in v. dil. solut. NaCl.—Uses: Staining bacteria. Color changes to yellowish-orange in sltly alk. media.

EHRlich's REAGENT—see *p*-Dimethylaminobenzaldehyde

Ehrlich's Solution—Test for Bilirubin

(a) 2.5 sulphanilic acid, 25 HCl, & 100 W.; (b) 0.5 NaNO_2 & 100 W.—For use, 49 parts (a) & 1 part (b) are mixed.—On adding this solut. to a solut. cont. bilirubin & acidul. w. acetic acid, an intense blue or violet color develops.

do. —Test for Indican

Dimethylaminobenzaldehyde 0.33 Gm., conc. HCl 50 cc., & W. 50 cc.—Boil urine w. an eq. vol. solution, cool, & make alkaline w. NH_4OH or KOH—a red color develops if indican present.

do. Stain—For Bacteria

Conc. aqu. 3:100 solut. methylene blue.

do. Stain—For Tubercles

4 soluts. are used: (a) filtered 1:20 aqu. solut. aniline; (b) conc. alcoh. solut. fuchsine; (c) conc.

alcoh. solut. gentian violet; (d) conc. alcoh. solut. methyl violet.—100 parts solut. (a) are mixed w. either 11 parts solut. (b) or (c) or (d).—USES: Freshly mixed, f. stain. cover-glass prep's. For stain. sections, only perfectly clear mixtures must be used, which can be obt'd by allow'g to stand 24 hrs.

Ehrlich's Triacid Stain

Accord. to the U.S.P. IX the solut. is made from 120 to 125 cc. sat. aqu. solut. Orange G., 80 to 165 cc. sat. aqu. solut. acid fuchsine, 125 cc. sat. aqu. solut. methylene green, 300 cc. W., 200 cc. absol. A., & 100 cc. G.

Ehrlich-Biondi's Triacid Mixture

Satur. aqu. soluts. of Orange G., Ruby S., & Methyl Green OO, mixed in the proport's of 10:3:5.—USES: Double- & poly-staining microscopic sections, partic. in pathologic-anat. exam. of intestines.

Ehrlich-Koziczekowsky's Solution—Test for Urobilinogen

2 Gm. *p*-dimethylaminobenzaldehyde, W. to make 100 cc., & enough HCl to acidulate.—USES: Detect. certain infectious-toxic diseases. To make the test place equal quantities of the urine in 2 test-tubes with 8 to 10 drops of the solut., & to one of the tubes add a few drops formaldehyde—the latter will retain its original color, but the former will acquire a red color in a few seconds in positive cases (e.g., pneumonia, pulmon. tuberc., endocarditis, scarlatina, acute artic. rheumatism).

Eikonogen

Sodium Aminobetanaphtholbetamonosulphonate. — $C_{10}H_5(NH_2)(OH)(SO_3Na)[1:2:6] + 2\frac{1}{2}H_2O = 306.22$.—Wh. powd.; strong reduc. power on silver salts.—SOL.: W.—USES: Photo. developer.—INCOMP.: Ammonia fumes.

Eka-Iodoform

An iodoform prep. by electrical synthesis & sterilized w. trioxymethylene.

Ektebin

An antigen (tuberculin) oint. prepared accord. to a method devised by Prof. Moro, & intended for the percutaneous treatm. of tuberculosis. The prep. contains conc. tuberculin together w. the dead bodies of both human & bovine tubercle bacilli.—Ektebin is applied by vigorously rubbing a small quant. f. abt 1 minute into the breast, back, or abdomen (not into the arm), the application being made at intervals of fr. 1 to 4 weeks, 6 such inunctions us'ly being sufficient. The inunction is perfectly harmless, and does not give rise to any focal reaction. The inunction develops a local dermatitis, whereby the tuberculin & the dead, the morphologically and chemically still intact, tubercles present in the prep. are taken up & attacked & dissolved by the products resulting fr. the inflammation; the skin is thereby compelled to elaborate not only tuberculin antitoxins but also such substcs as will counteract the effect of the partial antigens of the bacillar substce.

Elaïdin

Trielaïdin.— $C_3H_5(C_{18}H_{33}O_2)_3 = 885.12$.—Glycerin ester of elaidinic acid; fr. triolein by HNO_2 .—Wh. cryst.—SOL.: E.; alm. insol. A.—MELT.: $38^\circ C$.

Elarson

Strontium Chlorarsenobenhenate.—Alm. wh., amorph., tastel. powd.; abt 13% As.—SOL.: Sltly A., E.; insol. W.—USES: Chlorosis, anem., phth., Basedow's dis., skin dis., chorea, neuralg. & epilepsy.—DOSE: 0.008 Gm. ($\frac{1}{8}$ grn.) 3–5 t.p.d., in tablet form (as mkt'd); ea. tabl. = 0.0005 Gm. As = 1 drop Fowler's solut

ELASTICA—see Rubber

Elastin

Fr. ligamentous tissue, principally ligamentum nuchæ of ox, horse, &c.—Yellow albuminoid like gelatin.—Brittle, fibrous, yellowish mass.—SOL.: Hot conc. solut. KOH; cold conc. H_2SO_4 ; HNO_3 ; partially in pepsin solut.; insol. W., A., E.

Elaterin Merck—U.S.P. X

Momordicin.— $C_{20}H_{28}O_5 = 348.32$.—Active neutral prin. fr. Elaterium, a substce obt. fr. the juice of Ecballium (Momordica) Elaterium (L.) A. Richard, Cucurbitaceæ (Squirting Cucumber).—Wh., cryst. powd.; v. bitter taste.—SOL.: 325 A., 310 B., 15.5 C., 450 E., at $25^\circ C$, 100 boil. A., & insol. W. U.S.P.; (160 A. [90%], eas. CS_2 , amyl A., & soluts. of alkalies, B.P.C.).—ACTION: Drastic Purg.—USES: Ascites, uremia, pulmon. edema & dropsy, poison, by narcotics, &c.—DOSE: 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.); aver. dose 0.003 Gm. ($\frac{1}{20}$ grn.).—MAX. D.: 0.01 Gm. ($\frac{1}{8}$ grn.) p.d.—CAUT.: Poison!

Elaterium Merck

White, English, or Clutterbuck's, Elaterium.—Sediment fr. juice Ecballium (Momordica) Elaterium (L.) A. Rich. (Squirting Cucumber).—Grayish-green, flat or sltly curled, sm. pieces, or powd.; feeble odor; bitter, sltly acid taste.—SOL.: Partly hot A.—CONSTIT.: Elaterin 25%–30%, starch, fatty acids, & a phytosterol.—USES: Drastic purg.; variable action; percentage of elaterin fluctuates.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).

ELAYL—see Ethylene

ELAYL CHLORIDE—see Ethylene Chloride

Elbon

Cinnamoylparaoxyphenylurea. — $C_6H_5.CH:CH.CO.O.C_6H_4.NH.CO.NH_2 = 282.21$.—Wh., cryst., odorl., colorl., tastel. powd.—SOL.: A., acetone, oils; insol. W., alkalies, or dil. acids.—MELT.: Abt $204^\circ C$.—ACTION: Antipyr.—USES: Tuberc. & infect. catarrh of respir. passages.—DOSE: 3–4 Gm. (45–60 grn.) p. day.

ELDER—see Sambucus

ELECAMPANE—see Inula

ELECAMPANE CAMPHOR—see Helenin

Electr-Hg

Electromercurool.—Colloidal suspens'n of Hg = 0.1% metallic Hg w. a little sodium arabate.—Odorl., tastel. liq.; transp. & brown by transmitted light, opaque & gray by reflected light, N.N.R.—USES: As of solub. Hg salts.—DOSE: *Intramusc.* & *intraven.*, 5 cc. (75 M) p. day; *intraspinally*, 1–2 cc. (15–30 M) once a month.

ELECTROMERCUROL—see Electr-Hg

Elemi—B.P.C.

Resin Elemi; Gum Elemi; Manila Elemi.—Concrete oleoresin fr. *Canarium commune*, L., & *C. album*, Reinsh, Burseraceæ.—HABIT.: Philippine Islands.—Transp., soft, yellowish, granular masses; friable when cold; bitter, acrid, pungent taste; fragrant terebinthinate odor.—SOL.: Partly in cold, compl. in hot, A.; eas. in E. & turpentine oil; insol. W.—CONSTIT.: Volat. oil (20%–30%, B.P.C.); α - & β -manelemic acids, α - & β -manamyrin, & maneleresene; bitter principle; bryoidin.—USES: Ingredd. in resolvent plasters & oints f. atonic ulcers.—*Techn.*, in varnishes, lacquers, printer's and lithographer's inks.

ELEUTHERA BARK—see Cascarilla

ELFWORT—see Inula

ELIXIR VITRIOL—see Acid Sulphuric Aromatic

ELLAGIC ACID, ANHYDROUS—see Gallogen

Elm—U.S.P. X; B.P.C.

Slippery Elm.—Dried inner bark of *Ulmus fulva*, Michaux, Ulmaceæ, deprived of its outer corky layer.—HABIT.: Eastern & central N. America.—CONSTIT.: Much gum; little tannin.—ACTION: Demulc.; Nutrient.—USES: *Intern.*, as mucil. in diar., dysent., inflam. of urinary passages.—*Extern.*, as poultice f. abscesses, felonis, &c.—DOSE: Of mucilage, 15–60 cc. (4–16 fl. dr.).

Elm Bark—B.P.C.

English, or European, Elm.—Dried inner bark of *Ulmus campestris*, L., Ulmaceæ.—HABIT.: Europe.—CONSTIT.: Mucilage; tannin.—ACTION: Tenuicidic; Astring.; Demulc.—USES: Chron. skin dis.; cataplasm.—DOSE: 60–120 cc. (2–4 fl. oz.) of 1:8 decoct.

Embarin

Clear, yellow, abt 7% solut. sod. mercurysalicylsulphonate w. 0.5% acoin; 1 cc. (15 M) cont's 0.03 Gm. ($\frac{1}{2}$ grn.) Hg.—ACTION: Antisyphilitic.—DOSE: 1–2 cc. (15–30 M) by inj. ev. day or two until 15–20 injections are made.

Embelia—B.P.

Barabang; Babirung.—Dried fruit of *Embelia Ribes*, Burm., & *E. robusta*, Roxb., Myrsinaceæ.—HABIT.: East India.—CONSTIT.: Embelic acid (abt 2.5%, B.P.C.).—ACTION: Tenuifuge; Carminative; Stomachic; Alterat.; Antirheum.; Tonic.—USES: Tapeworm, rheumat., chronic skin diseases, dyspep.; also locally in ringworm.—DOSES: 4–16 Gm. (60–240 grn.).—Fl'dextr., 4–16 cc. (1–4 fl. dr.).

Embial

Oily solut. of an organ. bismuth comp'd; each cc. cont's 0.07 Gm. Bi.—Yellowish, clear liquid.—ACTION: Antisyphilitic.—DOSE: By intramuscular (intragluteal) injection, 1 cc. (15 M) at intervals of 3–4 days until 12–20 injections given.

EMERALD GREEN—see Brilliant Green; Chromium Hydroxide

EMETIC HERB—see Lobelia

EMETIC ROOT—see Euphorbia Corollata

Emetin—Resinoid

Purified alcoh. dry extr. fr. root *Uragoga Ipecacuanha*, Bail., (*Cephaëlis* I., A. Richard).—Yellowish-brown, light lumps.—SOL.: W.—ACTION: Emetic; Diaph.; Expector.—DOSES: *Emetic*, 0.2 Gm. (3 grn.), given in 2 portions; *expector.*, 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.).—CAUT.: Keep well stoppered.

Emetine Merck—Alkaloidal Mixture

Total alkaloids fr. root *Uragoga Ipecacuanha*, Bail. (*Cephaëlis* I., A. Richard); cont'g both emetine & cephaëline.—Whitish powd. or lumps; bitter taste; darkens on expos.—SOL.: A., C.; sltly in E.; v. sltly in W.—ACTION: Emetic, in large doses; Expector., & Antipyr., small doses.—DOSES: *Emetic*, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); *expector.* & *antipyr.*, 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.).—INCOMPAT.: As of alkaloids in general.

Emetine Bismuth Iodide Merck

Bismuth Emetine Iodide.—Odorl., orange-red, sltly bitter powd.; 17%–23% anhydr. emetine, & 15%–20% Bi.—SOL.: Sltly in W. & in dil. acids, w. decomp. (emetine liberated).—ACTION: As of Emetine.—USES: Chron. cases & carriers of amebic dysentery; also f. detect'g intestinal protozoa; because insolub., it is less likely to cause vomit. than solub. salts of emetine.—DOSE: 0.2 Gm. (3 grn.) daily f. 4 days, in single or divided doses; should be given in dry powd. (best in enteric gelat. caps.).

Emetine Hydrochloride Merck—U.S.P. X

$C_{25}H_{40}O_4N_2 \cdot 2HCl = 553.42$.—Accord. to the U.S.P., cont's the variab. amts W. of cryst., but should not cont. more than 19% W.—Salt of alkaloid fr. ipecac root.—Wh., or v. sltly yellowish, odorl. cryst. powd.; becomes somewhat yellow on expos. to light.—SOL.: Eas. W., A.—ACTION: Emet.; Expector.; Antidiarrh.—USES: Chiefly as expector.; tubercul.; has been advocated in amebic dysentery; also used in hepatic abscess, in pyorrhea alveolaris, in sprue, & to abort typhoid.—DOSE: Avar., 0.02 Gm. ($\frac{1}{2}$ grn.).—*Expector.*, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); in *amebic dysent.*, 0.02–0.04 Gm. ($\frac{1}{3}$ – $\frac{2}{3}$ grn.) on empty stomach; or *subcut.* in sterile saline solut., 0.02–0.03–0.05 Gm. ($\frac{1}{3}$ – $\frac{1}{2}$ – $\frac{3}{4}$ grn.) inj. into buttocks or thigh; in *tubercul.*, 0.0015 Gm. ($\frac{1}{40}$ grn.) subcut.; in *pyorrh.*, 0.5% solut. inj. into gingival sacs, or 0.03 Gm. ($\frac{1}{2}$ grn.) in 1 cc. (15 M) W. subcut. ea. day f. 3 days, then ev. 4th to 7th day, in *sprue*, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) subcut. daily f. 5 days.

Emodin

Trioxymethylanthraquinone; Methyltrihydroxyanthraquinone.— $\text{CH}_3\text{C}_{14}\text{H}_4\text{O}_2(\text{OH})_3 = 270$.—16.—Ident. w. frangulinic acid. Found in rubarb root & in *Rhamnus Frangula*, L.—Orange-red, lustr., sublimable, silky need.—**SOL.**: A.; glac. acetic acid; amyl. A.; alkal. solut. (w. cherry-red color).—**ACTION**: Aper.—**DOSE**: 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.).

Emulsin Merck

Synaptase; Amygdalase.—A glucoside-splitting enzyme or ferment found in var. seeds (bitter almonds, etc.).—Wh. or light-yellow powd.—**SOL.**: W. w. turbid.—Converts amygdalin into benzoic aldehyde, HCN, & glucose.—**USES**: Test f. raffinose (Neuberg-Marx).

ENALACHROM—see Esculin

Enesol

Mercury Salicylarsenate.—Amorph., wh. salt; 38.46% Hg, & 14.4% As.—**SOL.**: 25 W.—**USES**: Syphilis, &c.—**DOSE**: As of mercury biniodide (1 part enesol = abt 1 part HgI_2).—**DOSE**: *Subcut.*, 1–2 cc. (15–30 M) of 3% solut.

ENGLISH BROWN—see Bismarck Brown

ENGLISH TREACLE—see Germander

ENGLISH WHITE—see Calcium Carbonate

Eosine Bluish

Mixt. sod. salts tetrabromfluoresceine & methyleosine.—Red powd.—**SOL.**: A.; eas. W. w. green fluoresc.—**USES**: Dyeing wool, cotton, & paper. In histology as stain f. epithelia, muscular fibers, nuclei, hemoglobin prep's, &c.

Eosine Yellowish Merck

Bromeosine.— $\text{C}_6\text{H}_4\text{COONa} \cdot \text{C}(\text{C}_6\text{HBr}_2\text{ONa} : \text{C}_6\text{HBr}_2\text{O})_2\text{O} = 691.83$.—Alkali salt of tetrabromfluorescein.—Red cryst. w. bluish tinge, or brownish-red powd.—**SOL.**: Eas. W.; more diff. A.; insol. E. Conc. aqu. solut. is deep brownish-red, the dil. (1:500) solut. is yellowish-red, w. greenish fluoresc.; the alcoh. solut. exhibits strong yellowish-green fluoresc.—**USES**: Adapted f. coloring; dyeing wool & silk yellowish-red, & in painting; in bacteriology in 5% or 10% aqu. solut., & in 1% alcoh. solut. w. hematoxylin as nuclear stain; constituent of Ehrlich's eosine-indulin-aurantia mixt.; eosine-methylene blue mixt. f. stain. malaria plasmodia; as stain accord. to May-Gruenwald; also as test f. blood (Ganassini) & bile pigments (Mandach).

EOSOTE—see Creosote Valerate

Ephedra

Cay Note; Canutillo; Whore-house Tea; Tapopote; Teamster's Tea.—Lvs & branches of *Ephedra nevadensis*, S. Wats. (E. antisiphilitica, C. A. Meyer), Gnetaceæ.—**HABIT.**: U. S. (Calif.; Nevada).—**CONSTIT.**: Ephedrin (a glucosidal tannin).—**ACTION**: Antisiph.; Astring.—**USES**: Gonorrh.—**DOSE**: 2–8 Gm. (30–120 grn.) in powd., fl'dextr., or infus.

Ephedrine

α -Hydroxy- β -methylaminopropylbenzene
1. Phenyl-2. methylaminopropanol.— $\text{C}_6\text{H}_5\cdot$

$\text{CHOH} \cdot \text{CH}(\text{CH}_3\text{NH})\text{CH}_3 = 165.18$.—Levoisomeric alkaloid fr. *Ephedra vulgaris*, Rich., var. *helvetica*, Hook. (Ma Huang), Gnetaceæ.—Unctuous, alm. colorl. solid w. tendency to crystallize as needles.—**SOL.**: W., A., C., E. (solut. strongly alkaline to moist litmus paper); also in oils.—**MELT.**: Needles, 34° – 40° C.—**BOIL.**: When liquefied, above 200° C.—**ACTION** & **USES**: As of the salts, but better adapted for solut. in oils f. loc. applic. in 1% solut. to muc. membr.

EPHEDRINE HYDRATE—see Adrin

Ephedrine Hydrochloride Merck

$\text{C}_6\text{H}_5\text{CHOH} \cdot \text{CH}(\text{CH}_3\text{NH})\text{CH}_3 \cdot \text{HCl} = 201.65$.—Wh. need.—**SOL.**: W., A.; insol. E.—**MELT.**: Abt 210° C. w. decomp.—**ACTION**: Mydr.; Diaphor.; Circulatory Stim.; Antipyr.; Vasoconstrictor (acts like adrenalin, but its action is much more prolonged tho. less intense; given by mouth acts equally as well as when given subcut.).—**USES**: *Intern.*, asthma; hay fever; circulatory failure in myocardial dis.; poisoning by narcotics.—*Extern.*, one to two drops of 10% aqu. solut. in eye, inst. of atropine or homatropine. No irritation or disturb. of accommodation.—**DOSE**: *Intern.*, or *subcut.*, 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.); *intraven.*, 0.01 Gm. ($\frac{1}{8}$ grn.).

do. Merck—Tablets, $\frac{3}{4}$ grn. Each

Ephedrine Sulphate

$(\text{C}_6\text{H}_5\text{CHOH} \cdot \text{CH}[\text{NHCH}_3] \cdot \text{CH}_3)_2 \cdot \text{H}_2\text{SO}_4 = 428.43$.—Wh. odorl. cryst.—**SOL.**: Eas. W. & hot A., more diff. in cold A.—**ACTION**, **USES** & **DOSES**: As of the hydrochloride.

Ephetonin

α -Phenyl- β -methylaminopropanol Hydrochloride Merck.— $\text{C}_6\text{H}_5\text{CHOH} \cdot \text{CH}(\text{NH} \cdot \text{CH}_3) \cdot \text{CH}_3 \cdot \text{HCl} = 201.65$.—Racemic ephedrine obt. synthetically.—Wh., cryst. powd.—**SOL.**: 2 W., abt 40 A.; soluts neutral to litmus & optic. inactive.—**MELT.**: 186° – 188° C.—**ACTION**: As of adrenalin; fully as effective as the latter, & w. undiminished power even when given by mouth, while far less toxic tho. its action is much more prolonged; effect begins in $\frac{1}{4}$ – $\frac{1}{2}$ hr after taking.—**USES**: Chiefly in bronchial asthma, but also in hay fever, urticaria, idiosyncrasies, hypotonia, circulatory disturbances, etc.—**DOSE**: In *asthma* 0.05 Gm. ($\frac{3}{4}$ grn.), & if necess., 0.025 Gm. ($\frac{3}{8}$ grn.) in $\frac{1}{2}$ –1 hr; as a prophylactic, & to lessen severity of attacks, 0.05 Gm. ($\frac{3}{4}$ grn.). In prolonged attacks 0.025–0.05 Gm. ($\frac{3}{8}$ – $\frac{3}{4}$ grn.) 2–3 t.p. day.—Mktd in subste, tablets of 0.05 Gm. ea., & ampuls of 1 cc. (15 M) ea = 0.05 Gm. ($\frac{3}{4}$ grn.).

Epicarin

Oxynaphthylortho-oxytoluyllic Acid.— $\text{C}_6\text{H}_3 \cdot (\text{OH}) \cdot (\text{COOH}) \cdot (\text{CH}_2 \cdot \text{C}_{10}\text{H}_6\text{OH})[2:3:1] = 294.20$.—Colorl. to yellowish need.—**SOL.**: A., E., acetone, & in oils w. add. of a little E.; diff. in warm W., glac. acetic acid, B., & C.—**MISC.**: w. petrolatum & lanum.—**MELT.**: 190° – 195° C.—**ACTION**: Antiparasitic; Antisep.—**USES**: Scabies, herpes tonsurans, prurigo, ecz., dandruff, etc.—**APPL.**: 5%–20% oints or 10% oily or alcoholic solut.

Epichlorhydrin

Chloropropylene Oxide.— $\text{CH}_2\text{Cl}.\overline{\text{CHO}}.\text{CH}_2 = 92.52$.—Fr. dichlorhydrin by NaOH.—Colorl. liq.—Misc.: A., E.—Boil.: Abt 117° C.—Sp. Gr.: 1.193 at 15° C.—Uses: *Techn.*, as solvent f. resins, specially copal; manuf. intermediates, lacquer f. negatives, solvent f. nitrocellulose, manuf. zapon & o. lacquers, cement f. celluloid, &c.; also as test f. nicotine (Melzer).

Epidote—Mineral

Pistacite; Pistazit.—OCCUR.: U. S.; Canada; widely distributed.—COMPOS.: $(\text{SiO}_4)_3\text{Al}_2(\text{Fe}_2)(\text{AlOH})\text{Ca}_2$.—CRYST. SYST.: Monosym.—LUSTER: Vitr. to dull.—COLOR: Pistachio-green when massive, dark-green to brown when cryst., rarely red, gray or colorl.—STREAK: Wh., grayish. Transp. to opaque, usually transluc.—FRACT.: Uneven.—HARDN.: 6–7.—Sp. Gr.: 3.25–3.5.

EPINEPHRAN—see Epinephrine

Epinephrine—U.S.P. X; B.P.

Adnephrrin; Adrenal; Adrenalin (under which name first marketed); Adrenamine; Adrenine; Epinephran; Epirenan; Hæmostasin; Hemisine; Nephridine; Paraneprhrin; Renoform; Renostyptin; Supracapsulin; Supraden; Suprarenalin; Suprarenin; Vasoconstrictine; Dihydroxymethylaminoethylolbenzene; 1.Methylaminoethanolcatechol; Dioxypheylethanolmethylamine.— $\text{C}_6\text{H}_3(\text{OH})_2(\text{CHOH}.\text{CH}_2.\text{NH}.\text{CH}_3) = 183.16$.—Blood-pressure-raising prin. of suprarenal gland.—Wh. or light-brownish, odorl. microcryst. powd.; sltly bitter taste; darkens on exposure to air.—SOL.: Sltly W., A.; insol. C., E., acetone, oils; eas. in acids.—MELT.: 201°–207° C., & decomp. at higher temp.—ACTION: Hemostat.; Astring.; Vasoconstrictor; Vasomotor Stimulant.—USES: As spray in asthma & chron. bronchitis; in cardiac distress or collapse; in shock fr. chlorof. anesth., by inj. into artery; in shock fr. abdom. operation, & as prophylactic in acute peritonitis to prevent adhesions; subcut. in heart failure during anesth.; intern. hemorrhage, hemophilia, purpura, gastric ulcer, typhoid, & neoplasms; as styptic in gynecol.; in rattlesnake bite; asthma; hematuria; amebic dysentery; vomit. of pregnancy; menopause; bubonic plague; typhoid; instil. of 1:5000 solut. in acute glaucoma; to relieve pain in keratitis, iritis, & glaucoma; in acute urticaria & serum rashes, 0.5 cc. (8 M) 1:1000 solut. subcut.; also in 1:1000–10.000 solut. (as chloride) in hay fever, inflammation of tonsils, larynx, &c.; in dentistry & minor surgic. operations to prevent bleeding; in oily solut. for sprays; in ointm. f. applic. to mucous membr. (of eye & nose); 1:1000 oint. in neuralg. & neuritis; in supposit. f. hemorrhoids; also to retard absorption of drug in poisoning by cyanides, strychnine, & aconite, while emetics, etc., are being given; also acts as a powerful vasomotor stimulant, especially after hemorrhage.—DOSE: 0.3–2 cc. (5–30 M) of 1:1000 solut. as cardiac stimulant & vasoconstrictor & f. hemorrhage, purpura, hemophilia, etc.; 2 cc. (30 M) ev. 4 hrs in bubonic plague; amebic dysentery, 0.003–0.005 Gm. ($\frac{1}{20}$ – $\frac{1}{12}$ grn.) p.d.;

aver. dose 0.0005 Gm. ($\frac{1}{120}$ grn.).—*Hypoderm.*: 1–15 drops of 1:1000 solut. w. sterile W.; in snake bite, 8 drops repeatedly; to effect spinal anesth., 0.4 cc. (7 M) by subdural inj.—Often given w. intraven. saline infusion.

EPINEPHRINE HYDRATE—see Adrin

Epine

3.4. Dihydroxyphenylethylmethylamine.— $\text{C}_6\text{H}_3(\text{OH})_2.\text{CH}_2.\text{CH}_2.\text{NHCH}_3 = 167.16$.—Colorl., cryst.—SOL.: Sltly W., A.—MELT.: 188°–189° C.—ACTION & USES: As of epinephrine (*q.v.*); only 0.1 the strength of the latter, but its action is more prolonged.

EPIRENAN—see Epinephrine

EPSOM SALT—see Magnesium Sulphate

Erbium

Er = 167.70.—Fr. the gadolinite earths (rare earth group) of medium basicity.—Dark-gray powd.

Erbium Nitrate

$\text{Er}(\text{NO}_3)_3 + 6\text{H}_2\text{O} = 461.82$.—Reddish cryst.—SOL.: Eas. W., A.

Erbium Oxide

$\text{Er}_2\text{O}_3 = 383.40$.—Reddish-yellow powd.; glows intens. green at high temp., & gives a non-continuous emission-spectrum.—SOL.: Mineral acids; insol. W.

Erbium Sulphate Merck

$\text{Er}_2(\text{SO}_4)_3 + 8\text{H}_2\text{O} = 767.71$.—Rose-red cryst.—SOL.: Abt 20 W.

Erdmann's Solution—Test for Alkaloids

Mixt. 1 vol. dil. HNO_3 w. 30 vol. conc. H_2SO_4 .—Gives color reactions w. various alkaloids. (see pp. 560–563).

Ergosterol

$\text{C}_{27}\text{H}_{42}\text{O}.\text{H}_2\text{O} = 400.49$.—A sterol isolated fr. ergot, & fr. yeast, melt. at 164° C. When irradiated w. ultra violet light, develops vitamin D, & becomes the most powerful antirachitic substce so far known, as a daily dose of 0.0001 Mgm. ($\frac{1}{600000}$ grn.) of irradiated substce suffices to cure & prevent rickets in rats kept on a rachitogenic diet; & 0.005 Gm. ($\frac{1}{12}$ grn.) of it equals abt 1 liter (approx. 1 quart) of cod liver oil of good quality in antirachitic power.—See Vigantol.

ERGOSTEROL, IRRADIATED—see Vigantol

Ergot—U.S.P. X; B.P.; Fr. Cod.

Secale Cornutum; Spurred Rye.—Dried sclerotium of *Claviceps purpurea* (Fries) Tulasne, Hypocreaceæ, developed on rye plants.—HABIT.: Europe; cultiv. in Spain, Germany, & France.—CONSTIT.: Ergotoxine (hydro-ergotinine); ergotinine; ergotamine; ergothionein; para-oxyphenylethylamine; ergotic (sclerotinic or ergotinic) acid; sphacelinic acid; ergotene; cornutine (echoline); chrysotoxin; scallintoxin; sphacelotoxin; sclererythrin & ergochrysin (coloring matters); fatty oil (30%–35%); ergosterol; leucin; mannit; also acids which have not yet been isolated in pure form.—ACTION: Parturient; Hemostat; Emmenag.; Echolic;

Excitomotor.—USES: Labor, menorrhag., metrorrhag., & o. internal hemorrhages, night-sweats, whoop-cough, migraine, diabetes insipidus, paraplegia, epilepsy, chronic cerebral congest., vesical paralysis, &c.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose 2 Gm. (30 grn.); as parturient, 0.5–1 Gm. (8–15 grn.) ev. 10–15 minutes; as hemostat., 0.2–0.3 Gm. (3–5 grn.) 3–4 t.p.d.—Aceto-alcoh. extr., 0.3–1 Gm. (5–15 grn.); *subcut.* 0.06–0.5 Gm. (1–8 grn.) dissolved in water.—Alcoh. (60%) extr., 0.12–0.5 Gm. (2–8 grn.).—Aqu. extr., see Ergotin Bonjean.—Hypod. Inj. (1:3) 0.2–0.6 cc. (3–10 M).—Infus. (1:20) 30–60 cc. (1–2 fl. oz.).—Fl'd extr., 0.6–4 cc. (10–60 M).—Ammon. Tr. (1:4), 2–4 cc. (30–60 M).—ANTID.: Ether; camphor; coffee; emetics; purgatives; tannin (0.3 Gm. [5 grn.]) ev. 15 min.

ERGOTAMINE TARTRATE—see Gynergen

ERGOTIN—see Secacornin

Ergotin Merck—Accord. to Bonjean

Fr. ergot by W., & purified by A.—Reddish-brown, soft extr.; 1 part = 5–6 parts ergot.—SOL.: W.—ACTION & USES: As of ergot.—DOSE: 0.12–0.5 Gm. (2–8 grn.) in pill or subcut. sev'l t.p.d.—INCOMP.: Astringents & metallic salts in solut.—ANTID.: Tannin, opium, nitroglycerin.—CAUT.: Decomp. in solut.; should be sterilized & kept with great care.

do. Bonjean—Liquid, Purified, for Injection

Bonjean's Hemostatic Extract.—The preceding still further purified; 1 part = 1.5 parts Ergotin-Bonjean.—Clear, reddish-brown liq.—USES: Hypoderm. in uterine hemor. & o. intern. hemor.—DOSE: 0.5–0.6 cc. (8–10 M).

Ergotinine Merck—Amorphous

Ergotoxin (Barger & Dale); Sclerocrystalline (Podwysotzki); Hydroergotinine (Kraft).—Alkaloid fr. ergot of rye.—1 kilo ergot cont's abt 1.2 Gm. total ergotinine of which $\frac{2}{3}$ is amorph., & $\frac{1}{3}$ cryst.—Yellowish, amorph. powd.—SOL.: A., C., E.; sltly W.—MELT.: 138° C.—ACTION: Ecbolec, Hemost., &c., like ergotin; 0.00025 Gm. ($\frac{1}{240}$ grn.) subcut. is said to suffice to cause powerful uterine contractions (Tanret); acc. to Kobert, therapeutic action is v. slight until decomp'd into cornutine.

do. —B.P.C.—Cryst.

$C_{35}H_{39}N_5O_5$ = 609.53 (Barger & Carr).—Wh. or colorl. cryst.—SOL.: 312 A. (90%), 1020 absol. E., 26 acetone, 91 ethyl acetate, 77 boil'g B., & also sol. in C., amyl A., or xylene, but insol. W. & petrol. E., B.P.C.—ACTION: Ecbolec, Hemost. &c., like ergot (Tanret); acc. to Kobert, physiologically inert.—DOSES: 0.0003–0.0015 Gm. ($\frac{1}{200}$ – $\frac{1}{40}$ grn.).

Ergotinine Citrate

Grayish-wh. amorph. powd.—SOL.: Slowly in W.—USES: Inst. of ergotin in vasomotor neuroses, cephalalgia, neuralgia, Basedow's disease, & enuresis.—DOSE: 0.0003–0.0006 Gm. ($\frac{1}{200}$ – $\frac{1}{100}$ grn.).—Hypoderm., 0.6–1.3 cc. (10–20 M) of a 0.1% aqu. solut.

ERGOTOXIN—see Ergotinine

ERGOTOXINE—see Cornutine

Ergotoxine Phosphate—B.P.C.

$C_{35}H_{41}N_5O_6 \cdot H_3PO_4 \cdot H_2O$ = 743.62. —Acicular cryst.—SOL.: 18 boil., but less sol. cold, A. (90%), spar. in W.—MELT.: 187°–188° C. w. decomp.—ACTION, USES, & DOSE: As of Ergotoxine.

ERICIN—see Mesotan

Erigeron

Fleabane; Horseweed; Scabious.—Lvs & tops of *Erigeron canadensis*, L., Compositæ.—HABIT.: Northern & central U. S.—CONSTIT.: Volat. oil; tannin; gallic acid; bitter extractive.—ACTION: Diuret.; Anticatarrh.; Astring.—USES: Dropsy, & diseases of genito-urinary tract.—DOSE: Fl'dextr. 2–4 cc. (30–60 M).

Eriodictyon—U.S.P. X; B.P.C.

Yerba Santa; Consumptive's Weed; Bear's Weed; Mountain Balm; Gum Plant.—Dried lvs of *Eriodictyon californicum* (Hooker & Arnott), Bentham & Torrey, Hydrophyllaceæ.—HABIT.: U. S. (California).—CONSTIT.: Volat. oil; eriodictyol; homoeriodictyol; chrysoeriodictyol; xanthoeriodictyol; eriodonol; eriodictyonic acid; ericolin; resin.—ACTION: Stim.; Expector.; Bitter Tonic; Alterat.; Anticatar.—USES: Coughs, colds, asthma, inflam. of genito-urinary organs; corrigent vehicle for bitter & other disagreeable remedies.—DOSES: 0.6–2 Gm. (10–30 grn.); aver. dose 1 Gm. (15 grn.).—Alcoh. extr. 0.25–0.6 Gm. (4–10 grn.).—Fl'd extr., 0.6–2 cc. (10–30 M).

Erlicki's Hardening Solution

Solut. 5–10 Gm. cryst. $CuSO_4$ & 25 Gm. $K_2Cr_2O_7$ in 1000 cc. W.—USES: Fixing & hardening specimens. Acts more rapidly than Müller's Solution (*q.v.*).

do. Stain

5 Gm. methyl green in 200 cc. 1% acetic acid.—Used for stain. tissue & nuclei, f. central nervous system, etc.

Ernuten

An ergot preparation, the chief constit. of which is ergotoxin.—USES: Basedow's disease, hysteria, diabetes insipidus; *not* to be used in cerebral or pulmonary hemorrhages!—DOSE: 0.3–0.6 cc. (5–10 M) subcut. or intramuscularly; per os, 1.6–3.3 cc. (25–50 M).

ERUBESCITE—see Bornite

Erythrin

$C_4H_8O_4(C_8H_7O_3)_2 + H_2O$ = 440.29.—Fr. lichen *Rocella fuciformis*, Ach.—Colorl., cryst. powd.; bright-red on expos. to ammonia & air.—SOL.: A., E., caustic alkalies; sltly in boil. W.—MELT.: 148° C. when anhydrous.—USES: Indicator; dye.

ERYTHRINE—see Cobalt Arsenate

ERYTHRITE—see Erythrol

ERYTHROBENZIN—see Fuchsine, Dye

ERYTHROGLUCIN—see Erythrol

Erythrol

Erythrite; Erythroglycerin; Phycite.— $C_4H_6(OH)_4$ = 122.10.—Deriv. of erythrin found in many lichens (*Rocella* species).—Wh. cryst.—SOL.: W.; sltly in A.—MELT.: 126° C., after prev. softening.—BOIL.: 330° C.

Erythrol Tetranitrate Merck—Tablets, $\frac{1}{2}$ Grain Each

Tetranitrol; Tetranitrin; Nitroerythrite.—Tabl. ea. cont. 0.03 Gm. ($\frac{1}{2}$ grn.) erythrol tetranitrate (tetranitrol), $CH_2(ONO_2)(CH_2ONO_2)_2$. $CH_2(ONO_2)_2$ = 302.10.—ACTION: Vaso-dilator like amyl nitrite & nitroglycerin.—USES: Angina pectoris, asthma, cardiac dis., aneurism, chron. nephritis, high arterial tension, migraine, & as sed. in lead colic; especially useful f. prevent'g anginal pain.—DOSE: 1–2 tablets ev. 4–6 hrs.—Erythrol tetranitrate is a cryst. mass which explodes on percussion, hence is mkt'd only in tablet (with chocolate) form.

do. Merck—Tablets, $\frac{1}{4}$ Grain Each

Erythrophleine Hydrochloride—B.P.C.

Yellowish-wh. powd.—SOL.: W., A.—ACTION: Local Anesth.; Cardiac Tonic; exhibits pure digitalis-like action.—USES: Chiefly in ophthal., in 0.05%–0.25% solut. A 5% solut. in eugenol also used in dentistry as obtundent.—DOSE: 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.).

Erythrophleine Sulphate

Sulphate of alkaloid fr. Erythrophloeum guineense (Sassy bark).—Amorph., yellowish powd. or scales.—SOL.: W., A.—Exhibits a pure digitalis-like action.—ACTION: Local Anesth.; Cardiac Ton.; Diuret.—DOSE: As cardiogenic, 0.001 ($\frac{1}{60}$ grn.) ev. hr. & grad. incr'd.—MAX. DOSE: 0.01 Gm. ($\frac{1}{6}$ grn.) single, & 0.03 Gm. ($\frac{1}{2}$ grn.) p. day.—APPL.: 0.1%–0.2% solut. as corneal anesthetic; *subcut.*, bef. dental operations, bone chiseling, in neuralgias, diffic. deglutition, epididymitis, etc., 0.0005–0.005 Gm. ($\frac{1}{120}$ – $\frac{1}{12}$ grn.) in 0.1%–0.2% solut.; in dental caries & as anesthetic f. pulp, a mixt. of 1 Gm. (15 grn.) w. 1 Gm. (15 grn.) menthol in 4 Gm. (1 dr.) phenol.

Erythrosine

Sodium (or potassium) salt of tetraiodofluorescein (iodeosine).— $C_{20}H_6O_5I_4Na_2$ = 879.83.—Brown powd.—SOL.: W. w. red color.—USES: Dye; the "certified" preparation is used as a color f. food products.

Erythroxylin (Concentration)

Alcoh. extr. of Erythroxylin Coca, Lamarck.—Brown powd.—USES: Stim., Tonic.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).

ERYTHROXYLIN—see Coca

Esbach's Solution—Test for Albumin

Solut. of 1 Gm. picric acid & 2 Gm. citric acid in 100 cc. W.—Gives a yellow ppt. w. albumin.

Eschka's Mixture Merck—Reagent

Magnesium Oxide & Sodium Carbonate (2:1 [dried]).—Wh. powd. or soft sm. granules.—SOL.: Acids; partly in W.

MAXIMUM OF IMPURITIES

Sulphates (SO_3) 0.0025%

USES: Determ. S in coal, coke, & o. organ. bodies.—CAUT.: Keep well stop'd.

Escorcin

Escorcinol; Aescorcin.— $C_9H_8O_4$ = 180.11.—Fr. esculetin (a decomp'n prod. of esculin fr. the bk of the horse-chestnut), by sod. amalgam.—Brown powd.—SOL.: In alkalis, green, changing to red.—USES: To discover defects in cornea & lesions of conjunctival epithel.; red color of such more distinct on iris than green color of fluorescein.—APPL.: 1 drop 10%–20% aqu. solut.; develops a red spot lasting 10–20 min., & free fr. pain or irrit.

ESCORCINOL—see Escorcin

Esculetin

Aesculetin; 6,7 Dioxo-1,2 benzpyrone.— $(OH)_2$ — $C_6H_2(CH:CH).CO.O + H_2O$ = 196.11.—Fr. esculin by emulsion or dil. acids.—v. thin, shin'g need., or scales. Solutions fluoresce faint blue.—SOL.: Hot A., sltly cold, more eas. boil., W.; alm. insol. E.—MELT.: Above 270° C., w. decomp.

Esculin

Polychrome; Aesculin; Esculinic Acid; Bicol-
orin; Enallachrom.— $C_6H_{10}O_5.C_9H_8O_4 + \frac{1}{2}H_2O$ = 367.23.—Glucoside fr. inner bark Aesculus Hippocastanum, L. (Horse-chestnut).—Wh. cryst.; bitter taste. Solutions fluoresce faint blue.—SOL.: Spar. in cold, eas. in boil. W., hot A., C.; v. eas. in dil. alkalis.—MELT.: Abt 200° C.—ACTION: Antiper.—USES: *Intern.*, inst. of quinine in intermitt. fever & in neuralgia; also *subcut.* in conjunction w. Finsen light in lupus vulgaris in doses of 0.06–0.3 cc. (1–5 M) of a 5% solut. cont. 2%–3% sod. bicarb.—*Extern.*, as 4% glycerin oint. to protect skin fr. short-wave rays (sunburn, etc.).—DOSE: 0.3–1 Gm. (5–15 grn.).

Eseridine

Geneserine.— $C_{15}H_{23}N_3O_3$ = 293.28.—Alkaloid found w. physostigmine in seed Physostigma venenosum, Balf. (Calabar Bean).—Colorl. cryst.—SOL.: A., B., C., E., benzin, acetone; alm. insol. W.—MELT.: 132° C.—ACTION: Lax.; Motor-excit.—USES: As of physostigmine (but only $\frac{1}{6}$ as powerful as this accord. to Schweder). Us'ly as tartrate (or sulphate). The salicylate has been used in digestive disturbances of sympathetic origin, in symptom-complexes of the solar plexus, digestive arhythmia, obstin. constip. w. intest. spasms, etc.—DOSE: 0.0005 Gm. ($\frac{1}{120}$ grn.) 3–6 t.p.d., up to 0.003 Gm. ($\frac{1}{20}$ grn.) p. day; in v. obstin. constip. up to 0.005 Gm. ($\frac{1}{12}$ grn.) p.d.—In VETER. MED., as lax., *subcut.*, horses 0.5 Gm. (8 grn.); cattle, 0.6 Gm. (10 grn.); pigs, 0.02 Gm. ($\frac{1}{2}$ grn.); sheep & goats, 0.05 Gm. ($\frac{3}{4}$ grn.); dogs & cats, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) p. kilo of body wt, but not exceed. 0.01 Gm. ($\frac{1}{6}$ grn.).

Eseridine Tartrate

Geneserine Tartrate. — $C_{15}H_{23}N_3O_3.C_4H_6O_6$ = 443.35.—Wh. powd. or cryst.—SOL.: W. A.—USES: *Veter. Med.*, in colic & paralysis of the

rumen.—DOSE: *Horses*, 0.1–0.3 Gm. ($1\frac{1}{2}$ –5 grn.); *cattle*, 0.15–0.3 Gm. ($2\frac{1}{2}$ –5 grn.) per os or injected into the rumen, or 0.2–0.3 Gm. (3–5 grn.) subcut.; *sheep*, 0.05 Gm. ($\frac{3}{4}$ grn.).

ESERINE, & SALTS—see under Physostigmine

Eserine-Pilocarpine Merck

Physostigmine-Pilocarpine.—Obt. by cryst. a mixt. physostigmine salicylate 1, & pilocarpine hydrochloride 2.—Wh., cryst. powd.—SOL.: W., A.—ACTION: Anod.; Lax.—USES: *Veter. Med.*, in colic of *horses*.—INJ. (veter.) 0.4 Gm. (6 grn.) in 5 cc. (75 M) W.

ESSENCE COGNAC—see Ethyl Oenanthat

ESSENCE MIRBANE—see Nitrobenzene

ESSENCE NIOBÉ—see Methyl Benzoate

Ester Gums

These are the glyceryl, methyl, & ethyl esters of abietic acid, & are made by heating rosin & the alcohol under pressure until molecular condensation takes place.—The gums are soluble in amyl acetate, some oils, turpentine, CCl_4 , etc.—USES: Instead of copal, damar, and kauri in making enamels, paints, cellulose lacquers, & partic. w. tung. oil f. waterproof varnishes.

ESTEROL—Benzyl Succinate

Estoral

Boric-acid Menthol Ester.— $\text{B}(\text{C}_{10}\text{H}_{19}\text{O})_3 = 476.51$.—Colorl., tastel., cryst. powd.; faint menthol odor.—Decomp. into its constit. on contact w. mucous surfaces or when in solut.—USES: Chronic nasal catarrh, by insuffl. w. equal wt. milk sugar.

ETCHING INK—see Diamond Ink

ETHAL—see Alcohol Cetyllic

ETHANAMIDE—see Acetamide

ETHANAMIDACID HYDRAZIDE—see Semioxamazine

α - α - β -ETHANE TRICHLORIDE—see Trichlorethane

ETHANEDIAMIDE—see Oxamide

ETHANEDIOXYLUREID—see Acid Parabanic

ETHANETHIOETHER—see Ethyl Sulphide

ETHAN-NITRILE—see Methyl Cyanide

ETHANOL—see Alcohol

ETHANOXIM—see Acetaldoxim

ETHANOXYLBUTANDIACID-DIETHYLESTER — see Ethyl Acetylsuccinate

ETHENE—see Ethylene

ETHENENAPHTHENE—see Acenaphthene

ETHENYLPARADIETHOXYDIPHENYLAMIDINE HYDROCHLORIDE—see Phenacaine

Ether Merck—Reagent—Sp. Gr. 0.722–0.723

$(\text{C}_2\text{H}_5)_2\text{O} = 74.10$.—Clear, colorl., volat., inflamm. liq.—BOIL.: Abt 35°C .

MAXIMUM OF IMPURITIES

Evap'n Res.	0.001%
Acids.	0.002%
Aldehydes.	0.00%
Peroxides.	0.00%
Water.	Abt 0.3%
Alcohol.	Abt 1%

USES: Solvent f. fats, waxes, resins, oils, alkaloids, FeCl_3 , etc.

do. Merck—Reagent—Anhydrous, Distilled over Sodium

$(\text{C}_2\text{H}_5)_2\text{O} = 74.10$.—Clear, colorl. liq.—SP. GR.: 0.720 at 15°C .

MAXIMUM OF IMPURITIES

Evap'n Res.	0.001%
Peroxides.	0.00%
Acids.	0.001%
Aldehydes & Vinyl Alcohol.	0.00%
Sulphur Compds.	0.00%
Acetone.	0.00%
Water.	Abt 0.1%
Alcohol.	Abt 0.2%

USES: As of Ether, Reagent, SP. GR.: 0.725, & partic. where absence of A. & W. desirable.

Ether Merck—C.P., Anhydrous, Distilled over Sodium

Clear, colorl. liq.—SP. GR.: 0.720.

MAXIMUM OF IMPURITIES

Evap'n Res.	0.002%
Acids.	0.002%
Aldehyde & Vinyl Alcohol.	0.00%
Peroxides.	0.00%
Alcohol $(\text{C}_2\text{H}_5\text{OH})$.	Abt 0.3%
Water (H_2O) .	Abt 0.1%

USES: As of the Reagent, Anhydrous.

do. Merck—For Anesthesia—U.S.P. X

Ethyl Oxide; Ethylic, or Sulphuric, Ether.—Approx. 96%–98% ethyl oxide, $\text{C}_2\text{H}_5\text{O.C}_2\text{H}_5 = 74.10$, U.S.P.; abt 3% alcohol.—Very light, transp., colorl., very inflam., mobile liq.; pleas., character., arom. odor; burn., sweet taste.—MISC.: A., B., C., benzoin, oils, & sol. 12 W. at 25°C .—BOIL.: Abt 35°C .—SP. GR.: 0.713–0.716 at 25°C .—ACTION: Inhal. Anesth.; Analg.; Antispasm.; Stim.—USES: *Intern.*, by inhal. f. prod. anesth. in surg. operat., 15 cc. (4 fl. dr.) being us'y required to produce anesth., & abt 30 cc. (1 fl. oz.) being required f. ev. 15 min. thereafter to maintain it. Some authorities claim that much smaller quantities are required if the administration is properly conducted; also used in fainting, gastrodynia, colic, neuralg., cardialgia, tetanus, nerv. affect., dyspnea, asphyxia fr. toxic gases, sunstroke, &c.—*Hypoderm.*, syncope, collapse, &c.—*Extern.*, earache, toothache, neural., & local pain; appl. also makes easier the reduction of hernias; mixed w. A. to cleanse the skin in surg. operations.—DOSE: 0.3–4 cc. (5–60 M); aver. dose 1 cc. (15 M); *hypoderm.*, in syncope, collapse, etc. 1–2 cc. (15–30 M).—*VETER. MED.*, subcut. as stim., *horses* & *cattle*, 10–25 cc. ($2\frac{1}{2}$ –6 fl. dr.), *sheep*, 5–10 cc. (75–150 M), *dogs* 0.5–2 cc. (8–30 M); *intern.*, *horses* 25–50 cc. (6–12½ fl. dr.), *dogs*, 2–5 cc. (30–75 M).—

ANTID.: Stom. siphon or emetic, free supply of fresh air; ammonia, strychnine inj. (0.001 Gm. [$\frac{1}{60}$ grn.]), mustard plaster over heart, artif. respiration, galvanic current to the phrenic nerve.—CAUT.: Keep well stoppered, cool, & fr. fire. Administer only by daylight or electric light. Vapor highly inflammable, & when mixed w. air is explosive.

Ether Merck—U.S.P. X

do. —U.S.P. 1880—Abt 21% Alcohol

do. Merck—Concentrated—Not f. Medicinal Use

do. Merck—Motor—Priming Ether

Specially intended f. starting gasoline engines.

do. Merck—Washed—For Technical Purposes

Uses: As solvent of waxes, fats, oils, perfumes, gums; manuf. smokeless powd. & matches, intermediates, dyes, collodion, artif. silk, pyroxylin products, photographic films; as primer f. gasoline engines; cleaning fabrics.

Ether—Acetic, Acetoacetic, Acetylsalicylic, Benzoic, Benzoylactic, Bromic, etc.—See under Ethyl Acetate—Acetoacetate—Acetylsalicylate—Benzoate—Benzoylacetate—Bromide, etc.

ETHER ALPHAMONOBROMBUTYRIC—see Ethyl α -Brombutyrate

ETHER ALPHAMONOBROMPROPIONIC—see Ethyl α -Brompropionate

ETHER ALPHACHLORPROPIONIC—see Ethyl α -Chlorpropionate

ETHER ANESTHETIC, MIALKE'S, or WIGGER'S—see Ethyl Chloride, Hydrochlorated

ETHER, ARAN'S CHLORATED—see Ethyl Chloride, Hydrochlorated

ETHER CARBANILIC—see Phenylurethane

ETHER CHLORFORMIC—see Ethyl Chlorcarbonate

ETHER, COGNAC—see Ethyl Cocoinate

ETHER DIACETIC—see Ethyl Acetoacetate

ETHER, DIAMYL—see *iso*-Amyl Oxide

ETHER DIETHYLCARBONIC—see Ethyl Carbonate

ETHER ETHYLIDENEDIETHYLIC—see Acetal

Ether Glycerinic

($\text{CH}_3\text{CO}\cdot\text{CH}_2$)₂O = 130.11.—Fr. G. & oxalic acid by heat. Not to be confounded w. ethyl glycerate.—Yellowish viscid liq.; empyreum. odor.—SOL.: W., A., E.—SP. GR.: 1.14 at 15° C.—BOIL.: 171°–173° C.

ETHER, GUAIACOL ETHYLENE—see Guaiacol Ethylene

ETHER HYDRIODIC—see Ethyl Iodide

ETHER HYDROBROMIC—see Ethyl Bromide

ETHER HYDROCHLORIC, POLYCHLORATED—see Ethyl Chloride Hydrochlorated

ETHER ISOAMYLIC—see *iso*-Amyl Oxide

ETHER METHENYLTRIETHYLIC—see Ethyl Orthoformate

ETHER MURIATIC, CHLORINATED—see Ethylidene Chloride

ETHER NITROUS—see Ethyl Nitrite

"ETHER OZONIZED"—see Hydrogen Peroxide, Ethereal Solution

ETHER, PETROLEUM—see Benzin

ETHER, PROPENYL PHENTETROL-METHYLENE-DIMETHYL—see Apiol

ETHER PYROACETIC—see Acetone

ETHER THIOALLYLIC—see Allyl Sulphide

ETHER, WINE—see Ethyl Pelargonate

ETHEREAL OIL—see Oil Ethereal

ETHIDENE BICHLORIDE—see Ethylidene Chloride

ETHIOPS ANTIMONIALIS—see Mercury & Antimony Sulphide

ETHIOPS MINERAL—see Mercury Sulphide, Black

ETHOCAINE HYDROCHLORIDE—see Procaine Hydrochloride

ETHOL—see Alcohol Cetylic

o-ETHOXYANAMONOBENZOYLAMINOQUINOLINE—see Analgen

ETHOXYDIAMINOACRIDINE LACTATE—see Rivanol

p-ETHOXYPHENYLUREA—see Sucrol

Ethoxycaffeine

1.3.7. Trimethyl-2.6. dioxy-8. oxyethylpurin.— $\text{C}_8\text{H}_9\text{N}_4\text{O}_2\text{OC}_2\text{H}_5$ = 238.19.—From bromocaffeine & KOH by boil'g w. A.—Wh., gran., cryst. powd. w. slt yellowish tinge.—SOL.: W.; more eas. A. or E.—MELT.: 140° C.—ACTION: Analges.; Loc. Anesthetic.—USES: *Intern.*, migraine, trigem. neuralg.—*Extern.*, local anesth.—DOSE: 0.25 Gm. (4 grn.); *subcut.* as local anesth., 0.02 Gm. ($\frac{1}{2}$ grn.).

Ethyl Acetate Merck—C.P.

Acetic Ether; Vinegar Naphtha.— $\text{CH}_3\text{CO}\cdot\text{OC}_2\text{H}_5$ = 88.08.—Fr. A. & acetic acid (or an acetate) w. H_2SO_4 .—Clear, colorl., volat., inflam. liq.; charact. fruity odor; pleas. taste when dil.; slowly decomp. by moisture & then has an acid react.—SOL.: All proport. in A., C., E., oils, abt 15 W. (more sol. at lower, & less sol. at higher, temp.).—SP. GR.: Abt 0.900.—BOIL.: Abt 77° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Free Acid.....	0.00%
Methyl Comp'ds.....	Trace

do. Merck—N.F. V—So-called Absolute

Acetic Ether.—Not less than 96% by vol. ethyl acetate, $\text{CH}_3\text{CO}\cdot\text{OC}_2\text{H}_5$, & the bal. A, cont'g a little W., N.F. V.—Light, inflam., volat. colorl. liq.; fragr., acetous odor, character., burn. taste.—SOL.: Abt 12 W. at 25° C., & misc. all prop. w. A., C., E., & oils.—BOIL.: 72°–77° C.—SP. GR.: 0.887–0.895 at 25° C.;

(0.900–0.907 at 15.5° C., B.P.).—ACTION: Stim.; Antispasm.—USES: *Intern.*, nerv. affect. & fainting spells.—*Extern.*, rheumat., neuralg., & as anesthetic; subcut. as stimulant.—*Techn.*, Artif. fruit essences; solvent f. nitrocellulose f. plastics, varnishes, lacquers, & airplane dopes; manuf. smokeless powd., intermediates, photog. films & plates, artif. silk, perfumes; cleaning textiles, etc.—DOSE: 3–4 cc. (45–60 M) single, & 1–2 cc. (15–30 M) repeated, B.P.; aver. dose 1 cc. (15 M), N.F.—*Subcut.*, 0.5 cc. (8 M) to begin with, & increased as neces.—VETER. MED., as stim. & antispasm., in doses like those of ether.

Ethyl Acetoacetate

Diacetic, or Acetoacetic, Ester.— $\text{CH}_3\text{CO}\cdot\text{CH}_2\text{COOC}_2\text{H}_5 = 130.11$.—Fr. ethyl acetate by Na & acetic acid.—Colorl. to slightly yellowish liq.; charact. pleas., fruity odor.—SOL.: A., B., C., E.; sltly W.—SP. GR.: 1.031 at 15° C.—BOIL.: 94° C. at 45 mm.—USES: Chemically v. active, hence used in many condensation processes (acetoacetic syntheses), hence also important f. manuf. many important, techn. & scientific preps such as dimethylglyoxime, many dyes, important therap. preps. (antipyrene, etc.), & odorous substcs (ionone).

Ethyl Acetylsalicylate

Acetylsalicylic Ethyl Ester.— $\text{O}\cdot\text{CO}\cdot\text{CH}_3\cdot\text{C}_6\text{H}_4\cdot\text{COOC}_2\text{H}_5 = 208.15$.—Fr. ethyl salicylate by acetyl chloride.—Colorl. liq.—SP. GR.: 1.153 at 15° C.—BOIL.: 272° C. w. part. decomp.

Ethyl Acetylsuccinate

Acetylsuccinic - acid - diethylester; Ethanoyl-butandiacid-diethylester. — $\text{COOC}_2\text{H}_5\cdot\text{H}_2\text{C}\cdot\text{CH}(\text{COCH}_3)\cdot\text{COOC}_2\text{H}_5 = 216.18$.—Colorl. alm. odorl. liq.—SOL.: A., B., E., CS_2 ; insol. W.—SP. GR.: 1.088 at 15° C.—BOIL.: 254°–256° C. w. decomp.; 239°–240° C. at 330 mm.

ETHYL ALCOHOL—see Alcohol

ETHYL AMINOACETATE—see Ethyl Glycocollate Hydrochloride

Ethyl Aminobenzoate—U.S.P. X

Benzocaine; *p*-Aminobenzoic-acid Ethylester; Anaesthesin.— $\text{C}_6\text{H}_4\cdot\text{NH}_2$ [4] COOC_2H_5 [1] = 165.14.—Fr. paranitrobenzoic-acid ethyl-ester by Sn & HCl.—Wh., odorl., tastel. cryst. or cryst. powd.—SOL.: Abt 2500 W., 5 A., 2 C., 4 E., 30–50 olive or almond oil, at 25° C.; also sol. in dil. acids, U.S.P. X.—MELT.: 88°–90° C.—USES: *Intern.*, gastric ulcer, nervous dyspepsia, vomiting of pregnancy, gastric hyperesthesia, seasickness.—*Extern.*, in nose & throat catarrh, whoop-cough, tuberc. & syphil. laryngeal ulcers, urethritis, hemorrhoids, burns, intertrigo, pruritus, eczema, etc.—DOSE: 0.3–0.5 Gm. (5–8 grn.) 2 or 3 t.p.d.; aver. dose 0.3 Gm. (5 grn.).—APPL.: In rhinolaryngol., in 3% spray, & paint (1:2 susp. in mucil. acacia); in supposit. ea. cont. 0.2 Gm. (3 grn.); in vaginal supposit. ea. cont. 0.3 Gm. (5 grn.); 4%–10% oint.; & in 10% dust. powd.—VETER. MED., *intern.*, dogs, 0.3–0.5 Gm. (5–8 grn.) in vomiting; *extern.*, to relieve itching in eczema of the ear & in ear-worms. & also f. wounds & skin diseases.

Ethyl Benzenesulphonate

$\text{C}_6\text{H}_5\text{SO}_3\cdot\text{C}_2\text{H}_5 = 186.18$.—Fr. benzene sulphochloride & sod. ethylate.—Colorl. to sltly yellowish, alm. odorl. liq.; neutr. to litmus paper.—MISC.: A., B., C.; sltly sol. W.—SP. GR.: 1.215 at 15° C.—BOIL.: 151° C. at 11 mm.

Ethyl Benzoate Merck

Benzoic Ether.— $\text{C}_6\text{H}_5\cdot\text{COOC}_2\text{H}_5 = 150.13$.—Fr. benzoic acid in absol. A. by HCl gas.—Clear, colorl., refract., aromat. liq.; vapors cause cough.—SOL.: A., C., E., petrol. E.; alm. insol. W.—BOIL.: 212° C.—SP. GR.: 1.050–1.053 at 15° C.—USES: *Techn.*, in perfumery under the name "Essence de Niobe"; largely employed in manuf. "Peau d'Espagne"; artificial fruit-essence.

Ethyl Benzoylacetate

Benzoylacetic-acid Ethyl Ester.— $\text{C}_6\text{H}_5\cdot\text{CO}\cdot\text{CH}_2\text{COO}\cdot\text{C}_2\text{H}_5 = 192.15$.—Fr. ethyl benzoate & acetate by Na.—Colorl. liq.; pleas. odor of acetoacetic ether; becomes yellow on expos. to air & light.—BOIL.: 147°–149° at 10–12 mm.—SP. GR.: 1.121 at 15° C.

Ethyl Bromide Merck—C.P.

Monobromethane; Hydrobromic, or Bromic, Ether.— $\text{C}_2\text{H}_5\text{Br} = 108.97$.—Fr. NaBr, H_2SO_4 & A. by dist'n.—Colorl., inflam., volat. liq.; burn. taste.—MISC.: A., C., E.; sol. 110 W.—BOIL.: 38°–40° C.—SP. GR.: 1.453–1.457 at 15° C.

MAXIMUM OF IMPURITIES

Acid.....	None
Other Bromides.....	0.001%
Alcohol, Ether, etc.....	None
Chloroform.....	0.030%
Odorous Impurities.....	None
Organic Impurities.....	None

USES: *Chem.*, Organ. synthesis; manuf. intermediates.—*Medic.*, locally as an efficient Inhal'n & Local Anesthetic; Nerv. Sed.—*Intern.*, minor surg. & tooth extract'n, epilepsy, hyst., cardi-algia, angina pectoris, &c. It is of great importance to have a pure article for internal use, since w. an impure one, alarming after-effects may occur.—*Extern.*, spray in neuralgia, &c.—DOSE: 10–20 cc. (150–300 M) by inhalation, or 5–10 drops on sugar, or in capsules.—MAX. D.: 0.6 cc. (10 M).—CAUT.: Keep fr. light, heat, & air.

Ethyl α -Bromobutyrate

Alphamonobromobutyric Ether; Alphamono-bromated Normalbutyric Ether.— $\text{CH}_3\cdot\text{CH}_2\cdot\text{CHBr}\cdot\text{COO}\cdot\text{C}_2\text{H}_5 = 195.04$.—Colorl. liq.—SP. GR.: 1.342 at 15° C.—BOIL.: 178° C. w. part. decomp.

Ethyl α -Bromopropionate

Alphamonobromopropionic Ether.— $\text{CH}_3\cdot\text{CHBr}\cdot\text{COOC}_2\text{H}_5 = 181.02$.—Fr. ethyl lactate & PBr_5 .—Clear, colorl. liq.; ethereal but sharp, pungent odor; bec. yellow on expos. to light; at first neutral or nearly so to dry blue litmus paper.—SOL.: Eas. A., E.; v. sltly W.—SP. GR.: 1.398 at 15° C.—BOIL.: 160° C.; 54° C. at 15 mm.

Ethyl Butyrate Merck—Absolute

Butyric Ether.— $\text{CH}_3\text{CH}_2\text{CH}_2\text{COO.C}_2\text{H}_5 = 116.13$.—Fr. butyric acid & A. by heat.—Colorl. liq.; pineapple odor.—MISC.: A., E.; sol. 200 W.—SP. GR.: 0.88–0.89 at 15° C.—BOIL.: Of absolute, abt 120° C.—USES: *Extern.*, in liniment in itching of skin.—*Techn.*, flavor (pineapple), liqueurs; perfumery.

Ethyl iso-Butyrate

Isobutyric Ether.— $(\text{CH}_3)_2\text{CH.COOC}_2\text{H}_5 = 116.13$.—Fr. isobutyric acid & A. by heat.—Colorl. liq.; arom. fruity odor.—SOL.: Eas. A., E.—SP. GR.: 0.87 at 15° C.—BOIL.: 110° C.—USES: Manuf. flavoring comp'ds; in organ. synthesis.

Ethyl Caprate

Capric, or Caprinic, Ether; Ethyl Capriate.— $\text{C}_9\text{H}_{19}\text{COOC}_2\text{H}_5 = 200.25$.—Fr. capric acid in A. by HCl gas.—Colorl. liq.—MISC.: A., C., E.—SP. GR.: 0.870 at 15° C.—BOIL.: 244° C.—USES: *Techn.* in manuf. wine-bouquets, cognac essence, intermediates, &c.; also in organic synthesis.

ETHYL CAPRINATE—see Ethyl Caprate

Ethyl Caproate

Ethyl Normal Capronate; Caproic, or Capronic, Ether.— $\text{C}_5\text{H}_{11}\text{COOC}_2\text{H}_5 = 144.17$.—Fr. caproic acid, A., & H_2SO_4 by heat.—Colorl. to yellowish liq.; pleas. odor.—SOL.: A.—SP. GR.: 0.872 at 15° C.—BOIL.: 167° C.—USES: Manuf. artif. fruit flavors, intermediates.

ETHYL CAPRONATE—see Ethyl Caproate

Ethyl Caprylate

Normal Ethyl Octoate; Normal Caprylic Ether.— $\text{CH}_3(\text{CH}_2)_6\text{COO.C}_2\text{H}_5 = 172.21$.—Fr. caprylic acid in A. by HCl gas.—Clear, colorl., v. mobile liq., neutr. to litmus paper; pleas. pineapple odor.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 0.870–0.874 at 15° C.—BOIL.: 208° C.—USES: in fruit ethers; cont. in oenanthic, cocoic, & cognac, ethers.

Ethyl Carbamate—U.S.P. IX

Urethane; Ethylurethane.— $\text{CO}(\text{NH}_2)\text{OC}_2\text{H}_5 = 89.08$.—Fr. ethyl carbonate by NH_3 , or fr. urea & A. by heat.—Colorl., odorl., cryst.; cooling, saline taste.—SOL.: 0.8 A., 0.45 W., 0.9 C., 1.5 E., 2.5 G., 32 olive oil at 25° C., U.S.P. IX.—MELT.: 48°–50° C.—BOIL.: 180° C., B.P.C.—ACTION: Hypn.; Antispasm.; Sed.—USES: Insom., eclampsia, nerv. excit., tetanus; excessive restlessness, convulsions & spasmodic condit., sleeplessness, & whoop-cough; & as antid. in strychnine, resorcinol, & picrotoxin poison'g. Does not interfere w. circulation, or secretion; no unpleas. after-effects; in large doses increases respiration without affecting pulse or temp., & produces a mild, natural sleep. In eclampsia it should be given per enema.—DOSES: 1–2 Gm. (15–30 grn.); aver. dose 1 Gm. (15 grn.) As *sedative*, children, 0.25–0.5–1 Gm. (4–8–15 grn.) 1–4 t.p.d.; adults, *hypn.*, 2–3 Gm. (30–45 grn.) in 3 portions at $\frac{1}{2}$ –1 hr intervals, in 10% solut.—MAX. D.: 5 Gm. (75

grn.) single, 10 Gm. (150 grn.) daily.—INCOMP.: Alkalies, acids, antipyrine, butyl-chloral hydrate, camphor, phenol, euphorin, menthol, betanaphthol, resorcinol, salol, or thymol, in trituration.

ETHYL CARBOLATE—see Phenetol

Ethyl Carbonate

Normal (or Neutral) Carbonic, or Diethyl-carbonic, Ether;— $(\text{C}_2\text{H}_5\text{O})_2\text{CO} = 118.11$.—Fr. ethylpotass. carbonate & sulphate by dist'n.—Colorl., clear liq.; pleas. ethereal odor.—SOL.: A., E.; insol. W.—SP. GR.: 0.980 at 15° C.—BOIL.: 126° C.—USES: Organic synthesis.

Ethyl Chaulmoograte—U.S.P. X

Chaulmestrol; Moogrol.—Essentially a mixt. of the ethyl esters of the unsaturated acids (chaulmoogric & hydnocarpic) of chaulmoogra oil.—Limpid, alm. colorl., oily liq.; faint odor; not unpleasant taste.—SOL.: A., E.; insol. W.—SP. GR.: Abt 0.905 at 15° C.—USES: Leprosy; var. skin diseases.—DOSE: *Intern.*, grad'ly increas'g doses of 1–5 cc. (15–75 M) p. day.—*Intramusc.*, 1 cc. (15 M) once a week, the dose being incr'd by 1 cc. (15 M) ev. 2nd or 3rd inj. until a max. of 3–5 cc. (45–75 M) is reached (N.N.R.).

Ethyl Chlorcarbonate

Chlorcarbonic Ether; Chlorformic Ether; Ethyl Chlorformate.— $\text{Cl.CO.O.C}_2\text{H}_5 = 108.52$.—Fr. A. by COCl_2 .—Colorl., clear liq.; vapors strongly irritate eyes & muc. membranes.—SOL.: B., C., E.; grad. decomp. by W. & A.—SP. GR.: 1.444 at 15° C.—BOIL.: 93° C.—USES: Organ. syntheses like other chlorcarbonates; manuf. military poison gas.

ETHYL CHLORFORMATE—see Ethyl Chlorcarbonate

Ethyl Chloride Merck—U.S.P. IX

Monochlorethane; Kelene; Chelene.— $\text{C}_2\text{H}_5\text{Cl} = 64.51$.—Fr. A. by HCl.—Gas at ord. temp. & press.; when compressed, a colorl., v. volat. liq.; burns w. green flame.—MISC.: A., E.; sltly sol. W.—SP. GR.: Abt 0.921 at 0° C., U.S.P. IX; (0.920–0.960, B.P.).—BOIL.: 12°–13° C.—ACTION: Loc. & Gen'l Anesth.—USES: As spray in minor & dental surg., neuralg., in rodent & soft ulcer, lupus, trichophytosis; in skin transplanting, tooth extraction, in sycosis, in condylomata, & as counterirrit. in herpes zoster; heat of hand forces the stream fr. the tubes. Hold 6–10 inches (15–25 Cm.) away fr. thoroly cleansed surface to be sprayed; also as inhal. anesthetic f. producing general narcosis.—*Techn.*, as solvent f. P, S, waxes, oils; in refrigeration; in alkylation, & in organ. synthesis.—DOSE: 4–15 cc. (1–4 fl. dr.) by inhal.—CAUT.: Highly inflammable! Keep cool, & fr. light.—NOTE.: On account of its v. low boil.-point, the prep. is supplied only in sealed glass tubes.

Ethyl Chloride Hydrochlorated

Wigger's, or Mialke's, Anesthetic Ether; Aran's Chlorated Ether; Polychlorated Hydrochloric Ether.—Mixt. of di-, tri-, tetra-, penta-, &

hexachlorethane.—Clear, colorl. liq.; neutr. to litmus paper; odor & taste resembl. those of C. & CCl₄.—MISC.: A., C., E., fixed oils; insol. W.; under influence of W., air, & light slowly decomp. w. form. of HCl.—SP. GR.: 1.50–1.60 at 15° C.—BOIL.: 110°–140° C.—ACTION: Loc. Anesth.—USES: Remov. encysted tumors; as analges. applic. in neuralg., toothache, chron. & subac. artic. rheum.; in lead colic, nervous renal colic, uterine colic, pleuritis, pericarditis, etc.—APPL.: In mixt. of 3 cc. w. 25 cc. expressed almond oil & 0.5 cc. pepperm. oil, in artic. rheum.

ETHYL CHLORLACTATE—see Ethyl α -Chlorpropionate

Ethyl α -Chlorpropionate

Alpha(mono)chlorpropionic Ether; Ethyl Chlorlactate (Wurtz).—CH₃.CHCl.COOC₂H₅ = 136.56.—Fr. absol. A. by α -chlorpropionyl chloride.—Colorl. liq.; pleas. arom. odor; neutral or alm. so to dry blue litmus paper.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 1.092 at 15° C.—BOIL.: 146°–149° C. at 785 Mm.

Ethyl Cinnamate

Cinnamic, or Cinnamylic, Ether; Ethyl Phenylacrylate.—C₆H₅CH:CH.COOC₂H₅ = 176.15.—Fr. cinnamic acid, A., & H₂SO₄, by dist'n.—Alm. colorl., oily liq., neutral to litmus; faint cinnamon odor.—SOL.: A., E.; insol. W.—SP. GR.: 1.054 at 15° C.—BOIL.: 141° C. at 15 mm.—USES: As fixative f. perfumes.

Ethyl Citrate Merck

Citric Ether; Normal Ethyl Citrate; Triethyl Citrate.—C₆H₅O₇.(C₂H₅)₃ = 276.22.—Fr. citric acid, A., & HCl gas.—Colorl. to sltly yellowish, odorl., oily liq.—SOL.: A., E.; insol. W.—SP. GR.: 1.144 at 15° C.—BOIL.: 174° C. at 11 mm.

Ethyl Cocoate

Cocoinic, Cocoic, or Cocinic, Ether; Cognac Ether.—Fr. fatty acids of cocoa-nut oil in A. by HCl gas.—Consists chiefly of ethyl laurate, w. some ethyl esters of caproic, caprylic, capric, myristic, & palmitic, acids, diss. in alcohol.—Yellowish liq.; odor of ethyl oenanthe.—SOL.: Eas. A., E.—SP. GR.: 0.85 at 15° C.—USES: Manuf. artif. cognac.

Ethyl Cyanacetate

Cyanacetic Ether.—CN.CH₂.COO.C₂H₅ = 113.09.—Fr. cyanacetic acid in A. by HCl.—Colorl. liq.; slt pleas. odor.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 1.066 at 15° C.—BOIL.: 207° C.

Ethyl Cyanide

Propionitrile; Propanenitrile.—C₂H₅CN = 55.06.—Fr. C₂H₅I or C₂H₅Cl in A. by KCN & heat.—Mobile, clear, colorl., v. poisonous liq.; charact., pleas., sweetish odor.—SOL.: W.; eas. A., E.—SP. GR.: 0.787 at 15° C.—BOIL.: 97° C.—USES: Manuf. intermediates, & propionic acid.—CAUT.: Keep well stoppered. Poison!

Ethyl Dichloracetate

Dichloroacetic Ether.—CHCl₂.COOC₂H₅ = 156.99.—Fr. chloral hydrate in A. by KCN.—Colorl. liq.—SP. GR.: 1.283 at 15° C.—BOIL.: Abt 158° C.

Ethyl Diethylmalonate

Diethyl Diethylmalonate.—(C₂H₅)₂C:(COO.C₂H₅)₂ = 216.22.—Fr. diethylmalonic acid, sod. ethylate, & ethyl iodide.—Colorl. liq.—MISC.: A., E., insol. W.—SP. GR.: 0.992.—BOIL.: 223° C.—USES: Manuf. veronal.

ETHYL DIIDO-ORTHO-OXYBENZOATE—see Ethyl Diiodosalicylate

Ethyl Diiodosalicylate

Diiodosalicylic Ether; Ethyl Diiodo-ortho-oxybenzoate.—C₆H₂I₂(OH).COOC₂H₅ = 417.95.—Wh. to yellowish cryst.—SOL.: Hot A., fixed oils, B.; v. eas. A., E.; sltly W.—MELT.: 132° C.—USES: Inst. of iodof. in surg.

Ethyl Dimethylmalonate

Diethyl Dimethylmalonate; Dimethylpropanediacid Ethyl Ester; Ethyl β -Isopyrotartrate.—(CH₃)₂C:(COOC₂H₅)₂ = 188.18.—Fr. ethyl methylmalonate, C₂H₅ONa, & CHI₃.—Colorl., mobile, neutr. liq.; pleas. odor.—SOL.: Eas. A., E.; insol. W.—SP. GR.: 1.003 at 15° C.—BOIL.: 196° C.

Ethyl Ethylacetacetate

Ethyl Ethylacetonecarboxylate.—CH₃.CH₂.CH₂.CO.CH₂.COOC₂H₅ = 158.15.—Clear, colorl. liq., neutral to litmus paper; pleas. odor & arom. taste.—MISC.: A., E.; alm. insol. W.—SP. GR.: 0.983 at 15° C.—BOIL.: 198° C.

ETHYL ETHYLACETONECARBOXYLATE—see Ethyl Ethylacetacetate

Ethyl Formate Merck—Absolute

Formic Ether.—HCOO.C₂H₅ = 74.06.—Fr. formic acid, A., & HCl.—Mobile, colorl. inflamm. liq.; peach-kernel odor.—SOL.: 10 W. w. grad. decomp. into free acid & A.; misc. A., E.—SP. GR.: 0.92 at 15° C.—BOIL.: 54° C.—ACTION: Hypn.; Analg.; Diur.; Antisept.; Rubef.—USES: *Intern.*, as hypnot. & diuret.; in cough & whoop-cough, & choleraic enteritis in childr.; also in diarrh. in adults.—*Extern.*, as rubef.; also as inhal. in inflam. of respiratory passages.—*Techn.*, as flavor f. lemonades & essences; in alcohol. solut. f. manuf. artif. rum & arrac.—DOSE: As hypnot. 4–8 cc. (1–2 fl. dr.); as diuret. 1 cc. (15 M) single, & 3 cc. (45 M), p.d.; in diarrh., & childr., teasp. ev. 3 hrs of a 1:50 mixt.—CAUT.: Keep well stoppered, in contact w. calc. chloride.

Ethyl Glycollate Hydrochloride

Glycin-ethylester Hydrochloride; Ethyl Aminoacetate.—NH₂.CH₂.COOC₂H₅.HCl = 139.57.—Fr. glycoll hydrochloride, absol. A., & HCl gas.—Colorl. acicular cryst.—SOL.: Eas. W.; sltly cold A.; v. sltly E.

ETHYL GREEN—see Brilliant Green

ETHYL HYDROXIDE—see Alcohol

Ethyl Iodide Merck

Hydriodic Ether; Monoiodoethane.— $C_2H_5I = 155.97$.—Fr. amorph. P, I, & A.—Clear, colorl., neutr., heavy, v. refract., liq., cont'g a sm. quant. A. f. preserv. purposes; becomes red (separ. of I) on expos. to light & air (Ag-leaf prevents or greatly retards separ. of I, & any redness may be eas. removed by shak'g w. Ag-leaf); ethereal odor sltly resembl. that of volat. oil mustard.—SOL.: A., B., C., E.; abt 300 W., B.P.C.—SP. GR.: 1.930–1.940 at 15° C.—BOIL.: 72° C.—ACTION: Alter.; Antispasm; Stim.; Anesth.—USES: *Intern.*, chron. rheum., scrof., second. syph., chron. bronch., asthma, chron. laryngitis; in syphilitic inflam. of nose, mouth & throat, tuberc. of larynx & lungs, in subac. & chron. nasal catarrh, hay fever, & ozena; by inhal. in asthma, whoop.-cough.—*Extern.*, in 10%–20% oint. in whoop.-cough, & for sores; & in general iodization.—*Techn.*, in ethylations in organic chem., in manuf. certain aniline dyes, coumarin, etc; separ. mixture of minerals.—DOSE: 0.3–1 cc. (5–15 M) sev'l t.p.d., in W., caps., or on sugar.—*Inhal.*, 0.6–1.3 cc. (10–20 M).—CAUT.: Keep fr. air & light.

ETHYL β -ISOPYROTARTRATE—see Ethyl Dimethylmalonate

ETHYL ISORHODANIDE } see Ethyl Thiocar-
ETHYL ISOTHIOCYANATE } bimide

Ethyl Lactate

Lactic Ether; Ethyl α -Oxypropionate.— $CH_3 \cdot CHOH \cdot COOC_2H_5 = 118.11$.—Fr. anhydrous lactic acid, absol. A., & HCl by heat.—Colorl., liq. perf. neutr. to dry blue litmus paper; charact. odor.—MISC.: W. (w. part. decomp.), A., E.—SP. GR.: 1.039 at 15° C.—BOIL.: 154° C.—ACTION: Hypn.; Sed.—DOSE: 0.5–1 cc. (8–15 M) sev'l t.p.d.—CAUT.: Keep well stoppered.

Ethyl Malonate Merck

Malonic Ether; Diethyl Malonate.— $CH_2 \cdot (COOC_2H_5)_2 = 160.13$.—Fr. monochloroacetic acid, NaCN, A., & HCl.—Colorl. liq. neutr. to dry blue litmus paper; slt arom. pleas. odor & bitter taste.—SOL.: A., E.; v. sltly W.—SP. GR.: 1.059–1.063 at 15° C.—BOIL.: 198° C.—USES: Organ. synthesis.

Ethyl Monochloracetate

Monochloroacetic Ether. — $CH_2Cl \cdot COOC_2H_5 = 122.54$.—Fr. chloroacetic acid, A., & H_2SO_4 by heat.—Colorl. liq.; neutr. to dry blue litmus paper; pung. odor resembl. that of ethyl acetate.—SOL.: A., E.; insol. W.—SP. GR.: 1.157–1.163 at 15° C.—BOIL.: 144° C.—CAUT.: Vapors injure the eyes.

ETHYL MUSTARD OIL—see Ethyl Thiocarbimide

Ethyl Nitrate

Nitric Ether.— $C_2H_5ONO_2 = 91.06$.—Fr. urea nitrate, HNO_3 , & absol. A.—Colorl., clear, liq., neutr. to litmus paper; pleas. odor.—MISC.: A., E. in all proport.; alm. insol. W.—SP. GR.: 1.112 at 15° C.—BOIL.: 86° C.

—USES: Possesses anesth. properties, but is too dangerous & is not used therapeutically.

Ethyl Nitrite Merck—Concentrated, 1:21

Nitrous Ether.—Contains not less than 90% $C_2H_5NO_2 = 75.06$, & abt 10% A.—Clear, colorl. or yellowish, inflam., exceed. volat. liq.; charact. odor; burn., sweetish taste.—SOL.: Sltly W.; misc. A., E.—SP. GR.: Abt 0.90 at 15° C.—BOIL.: 17° C.—On keeping it becomes acid & grad. decomp., nitrogen oxide being formed; decomp. hastened by air, light, heat, & moisture.—USES: Prepar. spirit nitrous ether by mixing w. 21 parts alcohol.—CAUT.: Keep in compl. filled bot. in a dark, cool place.

ETHYL OCTOATE, NORMAL—see Ethyl Caprylate

Ethyl Oenanthe Merck—Finest, Limpid

Oenanthic Ether.—Prep. fr. the Natural, Green.—Clear, colorl. to sltly yellowish liq.; pleas. odor, even undiluted.—MISC.: A., E., C.—SP. GR.: 0.870 at 15° C.—USES: In manuf. artif. cognac.

do. —Natural, Green

Cognac Oil or Essence; Oil of Grapes; Oleum Vitis Viniferae.—Prod. of fermentation by wine yeast.—Greenish liq. (color due to traces of Cu); unpleas., sltly soapy odor when undiluted, but when strongly diluted, vinous odor.—MISC.: A., E.; insol. W.—SP. GR.: 0.87 at 15° C.—USES: Manuf. artif. cognac.

do. —Artificial

Cognac Essence; Artif. Oil of Wine.—Mixt. of amyl & ethyl caprates w. ethyl & isoamyl butyrates & caprylates.—Colorl. liq.; odor of oil of wine.—MISC.: A., E.; insol. W.—SP. GR.: 0.87 at 15° C.

Ethyl Orthoformate

Orthoformic Ether; Triethyl Formate; Meth-enyltriethyl Ether; Aethon.— $CH \cdot (OC_2H_5)_3 = 148.16$.—Fr. $CHCl_3$ & C_2H_5ONa by heat.—Colorl. liq.; sweetish odor resembl. that of pine needles; neutr. to dry, blue litmus paper.—SOL.: Eas. A., E.; also in W. but w. decomp.—SP. GR.: 0.900 at 15° C.—BOIL.: 145° C.—USES: *Intern.* in cough & whoop.-cough.—DOSE: Up to 25 drops.—NOTE: Has been recomm. also as an antispasm. in asthma, bronchitis, grippé, & choleraic dysent. in doses of 30–50 drops single, & up to 300 drops p. day for adults; f. childr. 6–12 mo's 8–10 drops, 1–2 yrs 10–15 drops, over 2 yrs 15–30 drops, 5–6 t.p.d. in W. or on sugar. In dysent., a tablesp. ev. 2 hrs of a mixt. of ethyl o-formate 2 Gm., W. 200 Gm., & syr. catechu 40 Gm.

Ethyl Oxalacetate

Oxalacetic Ester, or Ether; Oxalaceticdiethyl Ester.— $(C_2H_5)_2C_4H_2O_5 = 188.14$.—Fr. oxalic & acetic ethers in E. solut. by Na.—Colorl. to sltly yellowish oily liq.—MISC.: A., B., E.; insol. W.—SP. GR.: 1.175 at 15° C.—Decomp. when boiled at ordinary pressure; on shak'g w. W. grad. decomp. into A., & acetic & oxalic acids.

Ethyl Oxalate

Diethyl Oxalate; Oxalic Ether.— $\text{C}_2\text{H}_5\text{COO}\cdot\text{COOC}_2\text{H}_5 = 146.11$.—Fr. oxalic acid & absol. A. by dist'n.—Colorl., v. mobile liq., neutr. to dry, blue litmus paper.—Sol.: A., E.; eas. decomp. by W.—Sp. Gr.: 1.083 at 15° C.—Boil.: 185° C.—USES: Separ. amines.

ETHYL OXAMATE—see Oxamethane

ETHYL OXIDE—see Ether

ETHYL α -OXYPROPIONATE—see Ethyl Lactate

Ethyl Pelargonate Merck

Pelargonic Ether; Wine Ether.—Alcoh. solut. of var. essences.—Yellowish liq.; odor of ethyl oenanthate.—Sol.: A.—Sp. Gr.: 0.827 at 15° C.—USES: Manuf. cognac-like beverages (1 part ethyl pelargonate & 20 parts A. constitute "Cognac Essence").

ETHYL PHENATE—see Phenetol

ETHYL PHENYLACRYLATE—see Ethyl Cinnamate

ETHYL PHENYL CINCHONINATE—see Acitrin

Ethyl Phthalate

α -Phthalicacid Diethylester.— $\text{C}_6\text{H}_4(\text{COOC}_2\text{H}_5)_2 = 222.17$.—Colorl. liq.; aromat. odor.—Sol.: A., B., E.; insol W.—Sp. Gr.: 1.122–1.126.—Boil.: 295° C.

Ethyl Propionate

Propionic Ester, or Ether.— $\text{C}_2\text{H}_5\cdot\text{COOC}_2\text{H}_5 = 102.11$.—Fr. propionic acid, H_2SO_4 , & A. by dist'n.—Colorl. liq.; neutral to moist litmus paper.—Sol.: A.—Sp. Gr.: 0.895–0.896 at 15° C.—Boil.: 98°–99° C.

ETHYL RESORCINBENZYOYL CARBOXYLATE — see Resaldol

ETHYL RHODANIDE—see Ethyl Sulphocyanate

Ethyl Salicylate Merck

Salicylic Ether; Sal Ethyl.— $\text{C}_6\text{H}_4\cdot\text{OH}\cdot\text{COOC}_2\text{H}_5 = 166.13$.—Fr. salicylic acid, H_2SO_4 , & A.—Clear, colorl., v. refract. liq.; pleas. odor resembl. that of wintergreen oil; becomes yellow to yellowish-brown on long expos. to air & light.—Sol.: Eas. A., E.; insol. W.—Sp. Gr.: 1.133–1.137 at 15° C.—Boil.: 233° C.—USES: As of methyl salicylate, but stated to be only half as toxic.—*Techn.*, manuf. artif. perfumes.—DOSE: 0.3–0.6 cc. (5–10 M) 3–4 t.p.d.—CAUT.: Keep from air & light.

Ethyl Sebacate Merck

Diethyl Sebacate; Sebacic or Sebacinic Ether.— $\text{C}_8\text{H}_{16}(\text{COOC}_2\text{H}_5)_2 = 258.28$.—Colorl. to yellowish liq.—Sp. Gr.: 0.968–0.969 at 15° C.—Boil.: 307° C.

Ethyl Silicate

Tetraethyl Silicate; Silicic Ether.— $\text{Si}(\text{OC}_2\text{H}_5)_4 = 208.30$.—Fr. A. & SiCl_4 , or fr. $\text{C}_2\text{H}_5\text{ONa}$ & SiF_4 .—Colorl. liq.—Sol.: v. eas. A.—Sp. Gr.: 0.938–0.940 at 15° C.—Boil.: 165° C.

Ethyl Succinate—Normal

Succinic Ester, or Ether; Ethylsuccinic Ester; Diethyl Succinate. — $\text{COOC}_2\text{H}_5\cdot\text{CH}_2\cdot\text{CH}_2\cdot$

$\text{COOC}_2\text{H}_5 = 174.15$.—Fr. succinic acid in A. by HCl gas.—Clear, colorl. liq.; faint pleas. odor; neutr. to moist litmus paper.—Sol.: A., E.; insol. W.—Sp. Gr.: 1.044–1.046 at 15° C.—Boil.: 216° C.

Ethyl Sulphide

Diethyl Sulphide; Ethanethioether; Thioethyl-ether.— $(\text{C}_2\text{H}_5)_2\text{S} = 90.16$.—Fr. K_2S & $\text{C}_2\text{H}_5\text{Cl}$, or fr. zinc-ethyl & SOCl_2 .—Colorl. liq.; disagr. odor.—Sol.: Eas. A., E.; insol. W.—Sp. Gr.: 0.840 at 15° C.—Boil.: 92° C.—USES: Solvent f. anhydrous mineral salts; in baths f. coat'g metals w. gold & silver.

Ethyl Sulphocyanate

Ethyl Rhodanide, or Thiocyanide; Sulphocyanic Ether.— $\text{C}_2\text{H}_5\cdot\text{SCN} = 87.12$.—Fr. KSCN & calc. ethylsulphate by dist'n.—Colorl. to sltly yellowish liq.; disagr. leek odor.—Misc.: A., E.; insol. W.—Sp. Gr.: 1.016 at 15° C.—Boil.: 144° C.

Ethyl Tartrate

Diethyl Tartrate; Tartaric Ether.— $\text{COOC}_2\text{H}_5\cdot\text{CHOH}\cdot\text{CHOH}\cdot\text{COOC}_2\text{H}_5 = 206.15$.—Fr. tartaric acid in A. by HCl gas.—Colorl., thick, oily, hygrosc. liq.—Sol.: A., E.—Sp. Gr.: 1.209 at 15° C.—Boil.: 280° C.—MELT.: 17° C.

Ethyl Thiocarbimide

Ethyl Mustard Oil; Ethyl Isorhodanide or Isothiocyanate.— $\text{C}_2\text{H}_5\cdot\text{SCN} = 87.12$.—Fr. KSCN & $\text{C}_2\text{H}_5\text{I}$ by heat.—Pung., colorl. to yellowish liq.; vapors irrit. the eyes; blisters the skin.—Misc.: A., E.; insol. W.—Sp. Gr.: 1.004 at 15° C.—Boil.: 131° C.—ACTION: Loc. Irrit.—USES: *Extern.*, rheum., neural., & o. local painful affections.

ETHYL THIOCYANIDE—see Ethyl Sulphocyanate

Ethyl p -Toluenesulphonate

$\text{C}_2\text{H}_5\cdot\text{C}_7\text{H}_7\text{SO}_3 = 200.20$.—Monoclin. cryst.—MELT.: 32°–33° C.—Sp. Gr.: 1.174 at 32° C. (when fluid).—Boil.: 173° C. at 15 mm.

Ethyl Trichloracetate

Trichloracetic Ether.— $\text{CCl}_3\cdot\text{COOC}_2\text{H}_5 = 191.44$.—Fr. trichloroacetic acid in absol. A. by HCl gas.—Clear, colorl. liq., odor resembl. that of menthol.—Sol.: A., E.—Sp. Gr.: 1.388 at 15° C.—Boil.: 164° C.

Ethyl α -Truxillate

Alphatruxillic Ester, or Ether; Diethyl Truxillate; 1,3-Diethyl-2,4-diphenylcyclobutanedimethylate.— $(\text{C}_6\text{H}_5\cdot\text{CH}\cdot\text{CH}\cdot\text{COOC}_2\text{H}_5)_2 = 352.30$.—Wh. cryst. powd.—Sol.: B., C.; eas. hot A., glac. acetic acid; sltly cold A., ligroin.—MELT.: 147° C.

Ethyl Valerate Merck

Valeric Ether.—Consists of abt 75% ethyl isovalerate, $(\text{CH}_3)_2\text{CH}\cdot\text{CH}_2\cdot\text{COOC}_2\text{H}_5 = 130.15$; & abt 25% dextrogyr. ethyl l -methyl ethylacetate, $\text{CH}_3(\text{C}_2\text{H}_5)\cdot\text{CH}\cdot\text{COOC}_2\text{H}_5$.—Fr. valeric acid & H_2SO_4 by dist'n.—Colorl., oily liq.; apple odor.—Misc.: All proport. A., B., E.; alm. insol. W.—Sp. Gr.: Abt 0.870 at 15° C.—Boil.: 134° C. of pure iso comp'd.—ACTION:

Antispasm.; Sedat.—USES: Nerv. affect., partic. nerv. asthma & o. spasmodic conditions.—*Techn.*, in alcohol. solut. f. flavor. confectionery & beverages.—DOSE: 1–2 drops sev'l t.p.d.

Ethylacetanilid

Acetethylanilid.— $C_2H_5.C_6H_5N.C_2H_3O = 163.16$.—Fr. acetanilid & KOH in A. by C_2H_5Br & heat.—Wh. cryst.—SOL.: A., E.—MELT.: $55^\circ C.$ —BOIL.: $255^\circ C.$ —ACTION: Antipyr.; Analg.

ETHYLALDEHYDE—see Aldehyde Ethylic

Ethylamine—Anhydrous

Amidoethane; Aminoethane.— $C_2H_5.NH_2 = 45.07$.—Fr. C_2H_5Br (or $C_2H_5NO_3$) & NH_3 .—Colorl., v. light liq.; NH_3 odor.—SOL.: All proport. W., A., E.—SP. GR.: 0.689 at $15^\circ C.$ —BOIL.: $19^\circ C.$ —USES: Electroplating; manuf. intermediates & dyes.

do. —33% Solution

33% by wt $C_2H_5.NH_2$.—Clear, colorl., alkal. liq.; NH_3 odor.—MISC.: All proport. W., A.—SP. GR.: 0.927 at $15^\circ C.$ —USES: Affords w. uric acid comp'ds v. eas. sol., hence has been recom. in treatment of gout.

ETHYLAMINE CHLORIDE—see Ethylamine Hydrochloride

Ethylamine Hydriodide

Ethylamine Iodide; Monoethylamine. or Aminoethane, Hydriodide.— $C_2H_5.NH_2.HI = 173.00$.—Colorl. to sltly yellowish, hygros. cryst.—SOL.: Eas. W., A.

Ethylamine Hydrochloride

Ethylamine Chloride; Monethylamine, or Aminoethane, Hydrochloride.— $C_2H_5.NH_2.HCl = 81.54$.—Colorl. deliq. cryst.—SOL.: Eas. W., A.—MELT.: 76° – $80^\circ C.$ —CAUT.: Keep well stoppered.

ETHYLAMINE IODIDE—see Ethylamine Hydriodide

Ethylamine Sulphate

Monoethylamine, or Aminoethane, Sulphate.— $(C_2H_5.NH_2)_2.H_2SO_4 + H_2O = 206.24$.—Wh. cryst. powd.—SOL.: Eas. W., A.

Ethylaniline

Monoethylaniline; Ethylphenylamine.— $C_6H_5NH.C_2H_5 = 121.14$.—Fr. aniline & C_2H_5Br by heat.—Colorl., v. refract. liq. rapid. bec. brown on expos. to light & air; aniline-like odor.—MISC.: A. E.; insol. W.—SP. GR.: 0.960–0.964 at $15^\circ C.$ —BOIL.: Abt $204^\circ C.$ —CAUT.: Keep fr. air & light.

Ethylbenzene

Ethylbenzol; Phenylethane; Ethylphen.— $C_6H_5.C_2H_5 = 106.12$.—Fr. benzene & C_2H_5Cl by $AlCl_3$.—Colorl., v. mobile, refract. liq.; odor suggestive of B.; inflamm., & burns w. a v. smoky flame.—SP. GR.: 0.870–0.873 at $15^\circ C.$ —BOIL.: $135^\circ C.$

ETHYLBENZOL—see Ethylbenzene

ETHYLBENZOYLECGONINE—see Cocaethylene

Ethylbenzylaniline

Fr. ethylaniline, w. benzyl chloride.— $C_6H_5.N(C_2H_5).C_6H_5.CH_2 = 211.22$.—Brownish-yellow liq.—SOL.: A., E., C.; insol. W.—BOIL.: Abt $286^\circ C.$, w. slt decompos.—SP. GR.: 1.034 at $15^\circ C.$ —USES: Manuf. triphenylmethane dyes.

ETHYL CARBINOL—see Alcohol Propylic

ETHYLCYCLOHEXENYLBARBITURIC ACID—see Phanodorn

Ethylene

Ethene; Elayl.— $H_2C:CH_2 = 28.04$.—Fr. A. & H_2SO_4 ; fr. acetylene & H by passing over Ni or Pt at $100^\circ C.$; & other ways.—Colorl., inflammable gas; liquefies at $0^\circ C.$ & 42 atmos. pressure; w. 3 vols O forms an explos. mixt.—SOL.: Sltly W., more eas. A., E.—SP. GR.: Gas, 0.978 (air = 1); liquid, 0.335 at $8^\circ C.$ (W. = 1).—BOIL.: $-102.3^\circ C.$ at 760 mm.—SOLIDIF. at $-181^\circ C.$ —USES: *Medic.*, 9 vols mixed w. 1 vol. oxygen as a general ansth. to replace ether & nitrous oxide.—*Techn.*, manuf. organ. prep's, & "mustard" gas.—CAUT.: A mixt. w. oxygen should not be used near an open flame.

Ethylene Bromide—(Not Ethyl Bromide)

Symmetr. Dibromethane; Ethylene Dibromide (B.P.C.).— $CH_2Br.CH_2Br = 187.88$.—Fr. ethylene & Br.—Colorl., or faintly yellowish, heavy, emulsifiable liq.; chlorof. odor.—MISC.: All prop. A., E.; insol. W.—SP. GR.: 2.185 at $15^\circ C.$ —BOIL.: $131^\circ C.$ —ACTION: Cardiac Poison; Antiepilep.; Sedat.; Antineural.—USES: *Intern.*, epilep., delir. trem., nerv. headache, & nerv. insom.—*Techn.*, organic synthesis; manuf. intermediates; solvent f. celluloid, etc.—DOSE: 0.06–0.3 cc. (1–5 M) 2–3 t.p.d. in 5% emuls. or gelat. caps.—*Subcut.*, in like doses dissolved in oil.—CAUT.: Poisonous!

do. —Definite Refractive Index

Refract. Index = 1.537 at $20^\circ C.$

Ethylene Chloride Merck—(Not Ethyl Chloride)

Elayl Chloride; Symmetr. Dichlorethane; Ethylene "Dichloride" (B.P.C.); Dutch Liquid.— $CH_2Cl.CH_2Cl = 98.96$.—Fr. C_2H_4 & Cl by direct union.—Colorl., oily liq.; pleas. odor; sweet taste; irrit. vapor.—SOL.: A., E., C.; sltly W.—SP. GR.: 1.265 at $15^\circ C.$ —BOIL.: $84^\circ C.$ —ACTION: Anesth.; Rubef.; Antispasm.—USES: *Intern.*, gen'l anesth., inst. of chlorof., espec. operat. on the eye; cramps, diar., &c., like chloroform.—*Extern.*, rheumat. & as solvent f. I in skin disinfection.—*Techn.*, as solvent f. fats, oils, waxes, gums, resins, esters, etc.; manuf. intermediates, acetyl cellulose, tobacco extract.—DOSE: 5–20 drops 3–4 t.p.d. in alcohol, or fatty oil.—MAX. D.: 1 cc. (15 M) single; 3 cc. (45 M) p.d.

Ethylene Chlorhydrin

Glycol Chlorhydrin; Monochlorethyl Alcohol.— $CH_2Cl.CH_2OH = 80.51$.—Fr. glycol & HCl

gas by heat.—Colorl. liq.—SOL.: All prop. W.—SP. GR.: 1.200–1.205 at 15° C.—BOIL.: 128° C.—USES: Solvent; manuf. insecticides; treating sweet potatoes bef. planting.

Ethylene Cyanide

Succinonitrile; Butanedinitrile.— $C_2H_4(CN)_2 = 80.07$.—Fr. $C_2H_4Br_2$ & KCN in A. by heat.—Colorl., deliques. mass.—SOL.: W., A., C.—MELT.: 51° C.—Decomp. on dist. under ordinary pressure.—USES: Manuf. intermediates.

ETHYLENE DIBROMIDE—see Ethylene Bromide

ETHYLENE "DICHLORIDE"—see Ethylene Chloride

Ethylene Diiodide

Diiodethane.— $CH_2I.CH_2I = 281.88$.—Fr. C_2H_4 & I in A.—Yellowish cryst.—SOL.: A., E.—SP. GR.: 2.07 at 15° C.—MELT.: 81°–82° C.—Unstable; decomp. on expos. to air.

Ethylene Glycol Merck

Glycol; Ethylene Alcohol; 1,2-Dihydroxyethane.— $CH_2OH.CH_2OH = 62.06$.—Fr. $C_2H_4Cl_2$ & K_2CO_3 ; & o. ways.—Colorl., sweet, syrupy liq.—SOL.: Sltly E.; v. eas. W., A.—SP. GR.: 1.114–1.117 at 15° C.—BOIL.: 195° C.—USES: As preserv. of fruit essences, flavoring extracts, foods, & nonintox. beverages; in low-freezing soluts for radiators; as general solvent (waxes, resins, fruit flavors, dyes, etc.); finishing & dyeing textiles, moistening tobacco, preserv'g flexibility of leather; as lubricant f. gas meters; manuf. explosives, intermediates.

Ethylene Glycol Monacetate

Ethylene Monacetate; Ethylene-monacetin; Glycol-monacetin.— $OH.CH_2.CH_2OOC.CH_3 = 104.08$.—Fr. $C_2H_4Br_2$ & $KC_2H_3O_2$ in A. by boil.—Colorl. liq.—MISC.: W.; A.—BOIL.: 182° C.—SP. GR.: 1.108 at 15° C.

ETHYLENE MONACETATE—see Ethyleneglycol Monacetate

ETHYLENE PERIODIDE }
ETHYLENE TETRAIODIDE } see Diiodoform

Ethylenediamine

$NH_2.CH_2.CH_2.NH_2 = 60.09$.—Fr. $C_2H_4Cl_2$ & alcoh. NH_3 by heat.—Clear, colorl., thick, alkal. liq.; ammon. odor.—SOL.: W.; insol. E., B.—SP. GR.: 0.97 at 15° C.—BOIL.: 117° C.—ACTION: Solvent of albumin & fibrin.—USES: Diphth., w. an antisept.—*Techn.*, f. quant. ppt'g U salts (Siemsen).

Ethylenediamine Hydrated

Diaminethane.— $NH_2.CH_2.CH_2.NH_2.H_2O = 78.11$.—Colorl. to sltly yellowish liq.—SOL.: v. eas. W.—SP. GR.: 0.965–0.970 at 15° C.—BOIL.: 118° C.—USES: Solvent f. albumin & fibrin.

do. —10% Aqu. Solution

USES: Solvent f. albumin & fibrin, & also f. organ. silver salts (argentamine) & trikresol (kresamine).

Ethylenediamine Hydrochloride

$C_2H_4(NH_2)_2.2HCl = 133.03$.—Wh. cryst.—SOL.: W.; insol. absol. A.

ETHYLENEDIAMINE ISOVALERATE—see Hypotonin

ETHYLENEDIAMINE MERCURIC SULPHATE—see Sublamine

ETHYLENEDIAMINE-TRIKRESOL—see Kresamine

ETHYLENE-ETHENYLDIAMINE—see Lysidine

ETHYLENEIMINE—see Piperazine

ETHYLENE-MONACETIN—see Ethyleneglycol Monacetate

peri-ETHYLENENAPHTHYLENE—see Acenaphthene

ETHYLHYDROCUPREINE—see Optochin Base

ETHYLHYDROCUPREINE HYDROCHLORIDE—see Optochin Hydrochloride

ETHYLIC ETHER—see Ether

Ethylidene Chloride—From Paraldehyde

Chlorinated Muriatic Ether; Alphadichloroethane; Ethidene Bichloride; Chloridene.— $CH_3.CHCl_2 = 98.96$.—Colorl., oily liq.; odor & taste of chloro f.—SP. GR.: 1.178 at 15° C.—BOIL.: 58°–60° C.—ACTION: Inhal. Anesthetic.—USES: Anesth., inst. of chloro f., f. minor operat.—*Extern.*, as analgesic.

ETHYLIDENEDIETHYLIC ETHER—see Acetal

ETHYLIDENEDIMETHYLETHER—see Dimethylacetal

Ethylidenediurethane

$CH_3CH(CONH.OC_2H_5)_2 = 204.18$.—Fr. urethane in aldehyde by dil. HCl.—Wh., cryst. powd.—SOL.: A., E.; diffic. cold & more eas. hot, W.—MELT.: 125° C.—ACTION: Hypnotic (?).—CAUT.: Keep well stoppered & dry.

ETHYLMETHYPHENYLQUINOLINE CARBOXYLATE—see Neocinchophen

ETHYLMORPHINE HYDROCHLORIDE—see Dionin

Ethylnarceine Hydrochloride

Nareryl.— $C_{23}H_{26}(C_2H_5)NO_8HCl = 509.85$.—Wh. cryst. powd.—SOL.: C., E., petrol. E.; eas. W., A.; solub. in W. incr. by benzoates, cinnamates, & citrates.—MELT.: 205°–207° C.—ACTION: Hypn.; Antispasm.; Analg.—USES: Nerv. cough, whoop-cough, bronchitis, influenza, asthma.—DOSE: 0.02–0.08 Gm. ($\frac{1}{3}$ – $1\frac{1}{2}$ grn.) single; 0.06–0.15 Gm. (1– $2\frac{1}{2}$ grn.) p.d.; *hypoderm.*, 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.). *Children*, 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) in cough & whoop-cough, accord. to age.

ETHYLPHEN—see Ethylbenzene

o-ETHYLPHENOL—see Phlorol

ETHYLPHENYLAMINE—see Ethylaniline

ETHYLPHENYL ETHER, or OXIDE—see Phenetol

Ethylphenylketone

$C_6H_5.CO.C_2H_5 = 134.13$.—Fr. benzoyl chloride, C_6H_5 , & $AlCl_3$.—Colorl. liq.—SP. GR.: 1.015 at 15° C.—BOIL.: 218° C.

ETHYLPHENYLNITROSAMINE—see Nitrosoethyl-aniline

ETHYLPROPIONYL—see Diethylketone

ETHYLPIRIDINE—see β -Lutidine

ETHYLSUCCINIC ESTER—see Ethyl Succinate, Normal

ETHYLURETHANE—see Ethyl Carbamate

EUBORNYL—see Brovalol

Eucaine Hydrochloride—U.S.P. X

Benzamine Hydrochloride (B.P.C.); Betacaine, or Betaeucaine, Hydrochloride; Benzoylvinyl-diacetonalkamine Hydrochloride; Trimethyl-benzoxypiperidine Hydrochloride.— $C_5H_7N(CH_3)_3(C_6H_5COO).HCl = 283.72$.—Wh., cryst., odorl., powd.—SOL.: 30 W., 35 A., 6 C., at 25° C. & more sol. in boil. W. & boil. A., U. S. P.; 10 A. (90%), B.P.C.—ACTION: Local Anesth.—USES: Has been recom. f. use on muc. membr.; said to irritate the eye but little, hence used (cautiously) in ophthalmology; also in dentistry. Abt $\frac{1}{3}$ as toxic as cocaine, but anesthetic action slower, & irritant action on skin far greater, than with cocaine, B.P.C.—APPL.: In ophthalm., solut. eucaine & cocaine hydrochl. 0.2 Gm. (3 grn.) of ea. in 20 cc. (5 fl. dr.) W.; in cystoscopy, a 0.2% solut.; f. nose & throat, a 5%–10% aq. solut.; in dentistry, 2%–3% solut.; in 4%–5% solut. in Schleich's method of infiltration anesthesia; in hemorrhoids, a 5%–10% oint. w. 2% menthol; *subcut.* in sciatica, 70–100 cc. ($2\frac{1}{4}$ – $3\frac{1}{4}$ fl. oz.) of 1% solut. inj. near sciatic nerve.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.), B.P.C.—INCOMPAT.: Salicylates.—ANTIDOTES: Strong coffee, alcohol, strychnine; ether & ammonia as rapidly acting stimulants.

Eucaine Lactate

Benzamine Lactate, B.P.; Betacaine, or Betaeucaine, Lactate.— $C_5H_7N(CH_3)_3(C_6H_5COO).C_3H_5O_3 = 337.31$.—Wh., cryst. powd.—SOL.: 5 W., 8 A., B.P.—MELT.: 155° C., B.P.C.—ACTION: Local Anesthetic.—USES: Ophthalmology & dentistry in 2%–3% solut.; for the nose, throat, & ear, in 10%–15% solut.; for the urethra, 2%; regional anesthesia in 2%–5% solut.; f. infiltration anesthesia in 0.12% solut.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.), B.P.C.

Eucalyptene

Hydrocarbon from oil of eucalyptus.— $C_{10}H_{16} = 136.18$.—Clear, colorl. liq.—SOL.: A.—BOIL.: 160°–170° C.—ACTION: Antisep.

EUCALYPTENE HYDROCHLORIDE—see Eucalypteol

Eucalypteol

Eucalyptene Hydrochloride; "Terpilene Dihydrochloride."— $C_{10}H_{16}.2HCl = 209.11$.—Fr. oil Eucalyptus globulus, Labill.—Yellowish-wh. cryst.; arom., camphor-like odor; pecul. feeble, but persist., taste.—SOL.: A., C., E., oils; insol. W., G.—MELT.: Abt 50° C.—ACTION: Internal Antiseptic.—USES: Inst. of eucalyptus oil & eucalyptol in pulmon. & gastro-intest. disinf., bronch., typh., cholericform diar., &c. Borne well by stomach.—DOSE: 1.6 Gm. (25 grn.) daily; children, 0.25–0.75 Gm. (4–12 grn.) daily, w. milk.

Eucalyptol Merck—U.S.P. X

Cineol; Cajeputol.— $C_{10}H_{18}O = 154.19$.—Substance obt. fr. volat. oil Eucalyptus globulus, Labill., & o. sources, U.S.P.; chief constit. of oil eucalyptus but found also in oil cajuput & var. o. eucalyptus oils, & of oil Artemisia Cina.—Colorl., optic. inactive liq.; congeals below 0° C.; camphor-like odor; pung., spicy, cooling taste.—SOL.: A., C., E., glacial acet. acid, oils, & v. sltly in W.—SP. GR.: 0.921–0.923 at 25° C., U.S.P.; (0.930 at 15.5° C., B.P.C.).—BOIL.: 174°–177° C.—ACTION: Antisep.; Expect., Antispasm.; Antiper.—USES: Intern., colds, bronch., pneum.—Extern., rhinitis, scar. fever, measles, & chicken pox; also wounds or injuries, & in dentistry in antisep. mouthwashes; also by inhal. in diphth., asthma, whoop-cough, bronch., & catarrh, fr. cotton or a steam atomizer.—DOSE: 0.12–0.6 cc. (2–10 M) 4 or 5 t.p.d.; aver. dose 0.3 cc. (5 M).—Inj., 0.5–1 cc. (8–15 M) of mixt. of 2–5 eucalyptol & 10 liq. paraffin.

Eucalyptol, Chlorinated

Fr. eucalyptol & $KClO_3$ w. conc. HCl.—Colorl. liq.; eucalyptol odor.—USES: As solvent f. dichloramine-T; solut. must be kept dark, & contact w. W., metals, & organic matter must be avoided.

Eucalyptol-Iodoform

5% solut. of iodoform in eucalyptol.—ACTION & USES: Extern. Antisep.

Eucalyptus—U.S.P. X; B.P.C.

Gum Wood; Australian Fever Tree; Blue-Gum Tree.—Dried lvs of Eucalyptus globulus, Labillardiere, Myrtaceæ.—HABIT.: Australia; cult. in subtropics, Europe, N. Africa, & southern U. S.—CONSTIT.: Volat. oil (1%–3% B.P.C.); tannin; resins (three); eucalyptic acid; bitter principle; cerylic alcohol.—ACTION: Antispasm.; Antisep.; Febrifuge; Stim.; Astring.; Antipyr.; Expect.; Tonic; Hemostat.—USES: Hemorrhage, asthma, dyspep., malaria, & phthisis.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr. 0.06–0.2 Gm. (1–3 grn.).—Fl'dextr. 1–4 cc. (15–60 M).—Tr. (1:5) 2–8 cc. (30–120 M).

Eucalyptus Gum—N.F. V; B.P.

Eucalyptus Kino (B.P.); Red Gum.—Dried gummy exud'n fr. Eucalyptus rostrata, Schlecht., & o. spec. of Eucalyptus, Myrtaceæ.—HABIT.: Australia.—CONSTIT.: Kinotannic acid (abt 47%); kino red; glucoside; catechin; pyrocatechin.—ACTION: Astring.—USES: Coughs, colds, diarrh., dysentery.—DOSE: 0.3–1.3 Gm. (5–20 grn.), aver. dose 0.6 Gm. (10 grn.), us'y in troche or lozenge, w. or without potass. chlorate, cubebs, menthol, etc.—Liq. extr. (1:4) 2–4 cc. (30–60 M) in diarrh. & dysent.—Syr. (abt 15.6%), 2–4 cc. (30–60 M).—Comp. Syr. (7.5%), 2–4 cc. (30–60 M).—Tr. (1:4) 1–2.6 cc. (15–40 M).

EUCALYPTUS KINO—see Eucalyptus Gum

Eucasin

Casein-Ammonia.—By passing NH_3 over casein.—Fine powd.—SOL.: Warm W.—AC-

TION: Nutrient; Dietetic.—Given in bouillon, cocoa, chocolate, soups, etc.; incompat. w. wine & beer.

Eucatropine

Euphthalmine; Phenylglycolyl-methylvinyl-di-acetonalkamine Hydrochloride.— $C_6H_5N_2 \cdot (CH_3)_4(C_6H_5CHOH.CO)HCl = 327.76$.—Wh., gran., odorl. powd.—SOL.: Eas. W., A., C.; insol. E.—MELT.: Not below $183^\circ C.$, N.N.R.—ACTION: Mydriatic.—USES: As of atropine, homatropine, etc., but stated to be free fr. anesthetic action, pain, corneal irritation, or increase in intraocular tension (N.N.R.).—APPL.: 2–3 drops of 5%–10% solut. by instill'n, accord. to age of patient & nature of case.

EUCHININ—see Euquinine

Eucodal

Dihydroxycodone Hydrochloride Merck.— $C_{18}H_{21}NO_4 \cdot HCl = 351.73$.—Colorl., cryst. powd.—SOL.: Eas. W., A.—MELT.: Abt $270^\circ C.$ w. decomp.—ACTION: Sedat.; Analges.; Narcot. Exerts a prompt & powerful morphine-like action, but contains no morphine.—USES: Intern., Spasmodic coughs & pains in bronchitis, pleurisy, dyspnea, pain, tuberculosis of lungs & throat; relieves irrit'n in nervous colds & hay fever; useful in gall-stone & renal colics, pains due to ulcers & carcinoma, burns, injuries, operations, etc.—Extern., in dis. of cornea & iris, glaucoma, & bef. operations.—DOSE: In coughs, 0.003–0.005 Gm. ($\frac{1}{20}$ – $\frac{1}{12}$ grn.); as an analgesic, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.); in violent pains, 0.01 Gm. ($\frac{1}{6}$ grn.) intraven., or 0.02 Gm. ($\frac{1}{3}$ grn.) subcut.; may also be given in supposit.

Eucodin

Codeine Methylbromide; Methylcodeine Bromide.— $C_{18}H_{21}NO_3(CH_3)Br = 394.22$.—Wh. powd.; 80% codeine.—SOL.: Eas. W.; diffic. A.; insol. C., E.—MELT.: $261^\circ C.$ —ACTION: Sed.—USES: Inst. of codeine, partic. f. coughs.—DOSE: 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.) sev'l t.p. day, & up to 0.2 Gm. (3 grn.) p.d.

Eucupin Base

Isoamylhydrocupreine.— $C_{19}H_{22}N_2(OH) \cdot (OC_5H_{11}) = 382.41$.—Wh., alm. tastel. powd.—SOL.: A., E., oils; insol. W.—ACTION, USES, & DOSES: As of the following.

Eucupin Dihydrochloride

Isoamylhydrocupreine Dihydrochloride.— $C_{19}H_{22}N_2(OH) \cdot (OC_5H_{11}) \cdot 2HCl + H_2O = 473.36$.—Fine, colorl. needles; bitterish taste.—SOL.: 15 W., eas. A.—ACTION: Powerful Bactericide & Local Anesthetic.—USES: Intern., malaria, septic conditions, & influenza.—Extern., to relieve pains of cancerous growths & X-ray burns; as bactericide in abscesses, gas gangrene, carbuncles, furuncles, erysipelas, pyodertrias, diphth., also in wounds, in infiltration anesthesia, & in dentistry (purulent processes, periodontitis, periostitis, & disinf. root canals & pulp cavities).—DOSE: Malaria or influenza, 0.25–0.3 Gm. (4–5 grn.) of the Eucupin Base

ev. 3 hrs 6–8 t.p.d., or 0.5 Gm. ($7\frac{1}{2}$ grn.) 3–4 t.p.d.; in septic conditions, 0.2 Gm. (3 grn.) ev. 2 hrs f. 10 doses, then suspend f. a few days, & repeat.—NOTE! It is important to give the remedy early & not on an empty stomach, but best w. milk.—APPLIC.: An aqu. solut. of the dihydrochloride is best, though an oily solut. of the Base may be used. For wound disinf'n 1:200 solut.; in phlegmons, carbuncles, etc., no incision required, but only inj. of 1:200 solut. around them; abscesses are punctured, then partially filled with the 1:200 solut. & sewed up; f. infiltration anesthesia, a 0.2% solut. w. an eq. vol. of a 0.5% procaine-adrenaline solut.; in ulcerated carcinoma (of breast, rectum, etc.) a 2% solut. in oil, or suppository; in dentistry, 2–3 cc. (30–45 M) by inj. (w. procaine, if desired).

Eudialyte—Mineral

OCCUR.: Greenland.—COMPOS.: $(SiZr)_{20}O_{52}Cl_2(Ca, Fe)_6(NaKH)_{13}$.—CRYST. SYST.: Hexag. rhombohedr.—COLOR: Red to brown.—HARDN.: 5–5.5.—SP. GR.: 2.9–3.0.

Eufin

Carboxylicacid-diethylester.—Colorl., v. volat. liq.; arom. odor.—SOL.: Eas. oils, fats; diffic. W.—USES: As dental anesthetic, & in coryza (cotton wet w. the liquid & inserted into the nostril, or the nostril wet with it).

EUFLAVIN—see Acriflavine, Neutral

Eugallol

Pyrogallol Monacetate.— $C_6H_3(OH)_2 \cdot CH_3COO + \text{acetone}$.—Reddish-brown, syrupy liq.; marketed only in 67% solut. in acetone.—SOL.: W., A., E., C., castor oil, acetone.—BOIL.: Abt $185^\circ C.$ at 23 mm.—USES: Inst. of pyrogallol in obstinate chron. psoriasis, thickening of skin, lupus, etc., v. vigorous in action.—APPL.: Us'y pure, as paint once daily, followed in half hour by zinc-oxide powd. or paste.

Eugeniform

Eugenolcarbinol; Eugenolcarbinol-sodium.—Colorl. cryst.—SOL.: Eas. W.; diffic. A.; insol. E.—MELT.: $160^\circ C.$ —ACTION: Intest. Disinfect.—USES: Cholera, typhoid, & o. infect. diseases.—DOSE: 0.5–1 Gm. (8–15 grn.) twice p.d.

Eugenol Merck—U.S.P. X

Eugenic Acid; Caryophyllic Acid; Paraoxy-metamethoxyallylbenzene; Methoxy-*p*-allylphenol.— $C_6H_3(OH)(OCH_3) \cdot (CH_2 \cdot CH : CH_2) \cdot [4:3:1] = 164.15$.—A phenol fr. oil of clove & o. sources.—Colorl., or pale-yellow, thin liq.; becomes darker & thicker on expos. to air; clove odor & spicy, pungent taste.—SOL.: A., C., E., oils, & in 2 parts 70% A., glac. acet. acid, & alkali hydroxides; insol. W.—SP. GR.: 1.064–1.070 at $25^\circ C.$ —BOIL.: 250° – $255^\circ C.$, U.S.P.—ACTION: Antisep.; Antituberc.; Anesth.; Analges.—USES: Tuberc., &c.—Extern., oint. w. lanum in ecz. & o. skin dis.; local anesth. in dentistry, &c.—Techn., in manuf. vanillin, & in perfumery inst. of oil clove.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose 0.1 cc. ($1\frac{1}{2}$ M).—INCOMPAT.: $FeCl_3$; $KMnO_4$.

iso-Eugenol

$\text{CH}_3.\text{CH}.\text{CH}.\text{C}_6\text{H}_3(\text{O}.\text{CH}_3).\text{OH} = 164.15$.—Fr. eugenol by heat w. KOH in amyl A.; also synthet.—Alm. colorl., oily liq.; eas. bec. somewhat yellow.—Sp. Gr.: 1.091 at 15° C.—Boil.: 267°.—Uses: Manuf. vanillin.

EUGENOL BENZOATE—see Benzoyl-eugenol

EUGENOL METHYLATE—see Methyl-eugenol

EUGENOLCARBINOL, or EUGENOLCARBINOL-SODIUM—see Eugenoform

Eumenol

Fluid Extract Tang-kui (Kau-kui; Man-mu; Schan-ki) Merck.—Fr. root of a Chinese Araliaceae, the genus & species of which are not yet properly determined.—Brownish-green liq.; bitter-aromat. taste.—ACTION: Emmen.; Uterine Sed.—USES: Chiefly amenorrhea & dysmenorrhea, partic. if of nervous origin.—DOSE: 4–15 cc. (1–4 fl. dr.) 3 t.p.d. in sweetened water.—Also mktd in tabl. ea. cont'g 0.3 Gm. (5 grn.) dry extr. = 0.6 cc. (10 M) fl'dextr.

Eumydrin

Methylatropine Nitrate; Atropine Methyl-nitrate.— $\text{C}_6\text{H}_5(\text{HO}.\text{CH}_2).\text{CH}.\text{CO}.\text{O}.\text{C}_7\text{H}_{11}\text{N}(\text{CH}_3)_2\text{NO}_3 = 366.31$.—Wh., cryst., odorl., powd.—SOL.: Eas. W., A.; v. diff. in C., E.—MELT.: 163° C.—ACTION: Mydriatic; Antihidrotic.—USES: Hepatic colic, appendicitis, & paralytic obstruction by intestinal atony (by subcut. inj.); as antihidrotic in phth.—DOSE: 0.001–0.0025 Gm. ($\frac{1}{60}$ – $\frac{1}{24}$ grn.) as antihidrotic.—APPL.: As mydr. in 1%–2.5%–10% solut.—INCOMP.: Alkalies.

Eunatrol

Sodium Oleate.— $\text{NaC}_{18}\text{H}_{33}\text{O}_2 = 294.27$.—Light-yellow powd.—SOL.: W., A.—ACTION: Cholag.—USES: Biliary lithiasis.—DOSE: 0.25–1 Gm. (4–15 grn.) 2–4 t.p.d., in pill form (as mktd).—In severe cases 6–8 pills p.d. may be given.

Euonymin Merck—Light-colored

Mixture of purified glucoside, euonymin, fr. bark & root of *Euonymus atropurpureus*, Jacq. (Wahoo), w. milk sugar (1 + 9).—Yellowish powd.; sweetish, then bitter taste.—ACTION: Cholagogue; Cathart.—USES: Chronic constip. due to hepatic swelling, dropsy, & o. hepatic affections.—DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) in pills or mixture, w. extr. belladonna (to prevent occur. of colicky pains).—VETER. MED., as cholag. & cath., dogs, 0.05–0.3 Gm. ($\frac{3}{4}$ –5 grn.)

do. Merck—Brown

"Eclectic resinoid" fr. *Euonymus atropurpureus*, Jacq.—Light-brown, bitter powd.—SOL.: Partially in W., A.—USES: Cholagogue & drastic purgative, like resin podophyllum.—DOSE: Cholag., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); as drast. purg. 0.06–0.12 Gm. (1–2 grn.).

do. Merck—Green

Resinoid cont. chlorophyll, fr. *Euonymus atropurpureus*, Jacq.—Green. powd.—SOL.: Part. in W. or A.—DOSE: As of the preced'g.

EUONYMIR—see Dulcit

Euonymus—N.F. V; B.P.; Fr. Codex

Wahoo; Arrow Wood; Indian Arrow Wood; Bitter Ash; Burning-bush; Strawberry Tree; Spindle Tree.—Dried root-bark of *Euonymus atropurpureus*, Jacquin, Celastraceae.—HABIT.: U. S., Ontario to Florida east of Mississippi.—CONSTIT.: Euonymol; resinoid euonymin (3.2%, B.P.C.); euonysterol; atropurolo; atropurpurin; asparagin; euonic, malic, citric, & tartaric acids; citrullol; dulcite; fixed oil; albumin; wax.—ACTION: Cholagogue; Laxative; Diur.; Tonic; Expector.; Antiper.; Antiparasitic; Cathart.—USES: Chiefly as a laxat., & in dropsy.—DOSES: 0.3–2 Gm. (5–30 grn.) in powd.; aver. dose 0.5 Gm. (8 grn.).—Dry extr. 0.06–0.12 Gm. (1–2 grn.).—Fl'dextr., 0.3–2 cc. (5–30 M).—Hydroalcoh. extr. 0.12–0.3 Gm. (2–5 grn.).—Tr. (1:5) 0.6–2.6 cc. (10–40 M).

Eupatorin—Resinoid

Resin. extr. fr. *Eupatorium perfoliatum*, L. (Boneset, Thoroughwort).—Brown, v. bitter powd.—ACTION: Expector.; Tonic; Diaph.—USES: Colds, bronch., muscul. rheum., catarrh, grippe, dyspep., gen'l debil., & tape worm.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

do.—Glucoside

Fr. *Eupatorium perfoliatum*, L.—($\text{C}_{20}\text{H}_{25}\text{O}_{36}$)x.—Insol. W.—Decomp. at 250° C.

Eupatorium—N.F. V; B.P.C.

Boneset; Thoroughwort.—Dried lvs & flowering tops of *Eupatorium perfoliatum*, L., Compositae.—HABIT.: Canada to Florida & west to Texas & Nebraska.—CONSTIT.: Eupatorin (bitter glucoside); volat. oil; resin; tannin; sugar; inulin; wax.—ACTION: Tonic; Diaphor.; Anthelm.; Emetic.—USES: Colds, gen'l debility, catarrh, rheumat., worms, & to induce vomiting.—DOSES: 1–3 Gm. (15–45 grn.); aver. dose 2 Gm. (30 grn.).—Fl'dextr. 1.3–4 cc. (20–60 M).—Hydroalcoh. extr. 0.25–0.6 Gm. (4–10 grn.).

Euphorbia—N.F. V; B.P.C.

Pill-bearing Spurge; Snake-weed; Cat's-hair; Queensland Asthma-weed; Flowery-headed Spurge.—Dried herb of *Euphorbia hirta* (pilulifera), L., Euphorbiaceae.—HABIT.: Queensland (Australia); India; widely distrib. in tropical countries.—CONSTIT.: Several resins; an unstable glucoside.—ACTION: Expect.; Diuret.; Antiasthmatic.—USES: Asthma, cardiac dyspnea, hay fever, & chron. bronchitis. Lvs sometimes smoked in pipes in paroxysmal asthma.—DOSES: 0.6–4 Gm. (10–60 grn.) in powd. or infus.; aver. dose 2 Gm. (30 grn.).—Extr., 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).—Tr. (1:5), 0.6–4 cc. (10–60 M).

Euphorbia Corollata

Flowering Spurge; Emetic Root; Purging Root; Snake Milk.—Root of *Euphorbia corollata*, L., Euphorbiaceae.—HABIT.: Canada & eastern U. S.—ACTION: Emet.; Diaphor.; Expector.—USES: Inst. of ipecac, f. emesis, sweating, coughs, colds, &c.—DOSE: Fl'dextr., 0.3–2 cc. (5–30 M).

Euphorbium—B.P.C.

Gum-resin fr. *Euphorbia resinifera*, Berg, Euphorbiaceæ.—HABIT.: Morocco.—Irreg., yellowish or brownish, stlty friable tears; alm. odorl.; taste first feeble, then pungent & persistently acrid.—SOL.: Part. A. (62%), E. (56%), W. (32%), & alm. compl. in glac. acet. acid, B.P.C.—CONSTR.: Euphorbin; euphorbone (40%); euphorboresene (20%); caoutchouc; euphorbic acid (0.7%); calcium malate (25%); bitter principle.—ACTION: Emet.; Cathart.; Errhine; Vesicant; Irritant.—USES: *Extern.*, vesicant, chiefly in veter. practice.

EUPHTHALMINE—see Eucatropine

Euphyllin

Theophylline-ethylenediamine.— $(\text{CH}_2\text{NH}_2)_2 \cdot \text{C}_7\text{H}_8\text{N}_4\text{O}_2 + (\text{CH}_2\text{NH}_2)_2 \cdot (\text{C}_7\text{H}_8\text{N}_4\text{O}_2)_2 = 660.58$.—1 Gm. (15 grn.) = 0.82 Gm. (12 grn.), theophylline.—Cryst. powd.—SOL.: Eas. W.—ACTION: Diuretic.—USES: Nephritis, dropsy, cardiac pain.—DOSES: 0.3 Gm. (5 grn.) per os; intramusc., 0.2–0.3 Gm. (3–5 grn.); as suppository, 0.36 Gm. (6 grn.).

Euporphin

Apomorphine Methylbromide.— $\text{C}_{17}\text{H}_{17}\text{NO}_2 \cdot \text{CH}_3\text{Br} + \text{H}_2\text{O} = 380.19$.—Colorl. cryst.—SOL.: Eas. W., A.; insol. E.—MELT.: $152^\circ - 158^\circ \text{C}$.—ACTION: Expector.—USES: Bronchitis, asthma, pneum., phth.; like apomorphine hydrochloride, but soluts said to be more stable than those of apomorph. salts.—DOSE: 0.005 Gm. ($\frac{1}{12}$ grn.) single, & 0.01–0.04 Gm. ($\frac{1}{6} - \frac{2}{3}$ grn.) p. day. Given also comb'd w. morphine in tablet (0.005 Gm. [$\frac{1}{12}$ grn.] w. 0.001 Gm. [$\frac{1}{60}$ grn.] morph. hydrochlor.).

Eupyrin

Vanillinethylcarbonate-paraphenetidin.— $\text{C}_6\text{H}_4(\text{OC}_2\text{H}_5)\text{N} \cdot \text{CH} \cdot \text{C}_6\text{H}_3(\text{OCH}_3)\text{O} \cdot \text{COOC}_2\text{H}_5 = 343.27$.—Light-yellow cryst.—SOL.: C., E., hot A.; stlty W.—MELT.: $87^\circ - 88^\circ \text{C}$.—ACTION: Mild Antipyr., partic. adapted f. debilit. & old persons.—DOSE: 1–2 Gm. (15–30 grn.) 1–2 t.p.d.

Euquinine

Quinine Ethylcarbonate, U.S.P. X; Euchinin; Quinine Carbonic Ether.— $\text{OC}_2\text{H}_5 \cdot \text{CO} \cdot \text{OC}_{20}\text{H}_{23}\text{N}_2\text{O} = 396.36$.—Wh., tastel., light, conglomerations of needles; cont. approx. 82% quinine.—SOL.: Eas. in A., C., E.; in dil. acids w. decomp.; stlty W.—MELT.: Abt 91°C .—ACTION: Antimalarial; Febrif.; Tonic. Succed. f. quinine & its salts intern. Does not so frequently derange the stomach or intestines; rarely causes cinchism & then less intensely than quinine sulph. Partic. suitable f. admin. to delicate women & children.—USES: Malaria; febrile infectious dis.; whoop-cough, neuralgia, hectic fever, typhoid; quinine idiosyncrasy; prophylactic f. malaria.—DOSE: 1–2 Gm. (15–30 grn.) in powd. or tabl., or w. soup, milk, or cocoa; as a *prophyl.*, 0.5 Gm. (8 grn.) twice daily f. adults, & 0.25 Gm. (4 grn.) f. children. Accord. to Kramer the doses f. childr. are: 1 yr, 0.06 Gm. (1 grn.); 2 yrs, 0.2 Gm. (3 grn.); 3 yrs, 0.36 Gm. (6 grn.); 4 yrs, 0.5 Gm. ($\frac{7}{12}$ grn.); 5 yrs, 0.6 Gm. (10 grn.); 6–7 yrs, 0.7 Gm. (12

grn.); 8 yrs, 0.8 Gm. (13 grn.); 9–10 yrs, 1 Gm. (15 grn.); all 3 t.p.d. Accord to Binz, doses f. children are: 0.01 Gm. ($\frac{1}{100}$ grn.) f. ea. month under 1 yr, but not more than 2 doses of 0.05 Gm. ($\frac{1}{20}$ grn.) ea. & 0.2 Gm. (3 grn.) f. ea. year of age above 1 yr.—INCOMPAT.: Acids & acid salts.—NOTE: This "perfected" quinine is partic. eligible f. children's use, as well as in many o. cases, because, while tasteless, it yet develops the full quinine effect w. practically no after-effects.

do. —Tablets, 2 Grains & 5 Grains Each

Euquinine Salicylate

$\text{COOH} \cdot \text{OH} \cdot \text{C}_6\text{H}_4 \cdot \text{C}_2\text{H}_5 \cdot \text{O} \cdot \text{CO} \cdot \text{OC}_{20}\text{H}_{23}\text{N}_2\text{O} = 534.44$.—Wh., tastel., cryst.—SOL.: Alm. insol. W.; stlty E.; eas. in C., hot A.—MELT.: Abt 195°C .—USES: Exhibits comb'd effect of quinine & salicylic acid; partic. adapted f. children.

Euresol

A brand of Resorcinol Monacetate.— $\text{C}_6\text{H}_4(\text{OH})(\text{CH}_3\text{COO}) = 152.10$.—Thick, syrupy, golden yellow, oily liq.—SOL.: A., B., C., acetone, solut. of alkalies; insol. W.—BOIL.: 283°C .—USES: Inst. of resorcinol, extern. in acne, scycosis, seborrhea, psoriasis capitis, alopecia, chilblains, &c.—APPL.: 5%–20% oints., & in acetone solut.; for scalp lotions, 3%–5% alcch. solut.

Euresol "Pro Capillis"

Euresol specially perfumed, & intended f. scalp treatment, & f. use in hair tonics & scalp lotions.

EUROPEAN BITTER POLYGALA—see Polygala

EUROPEAN BUCKTHORN—see Frangula

EUROPEAN ELDER—see Sambucus

EUROPEAN ELM—see Elm Bark

EUROPEAN PENNYROYAL—see Pulegium

EUROPEAN TEA—see Veronica

EUROPEAN WHITE BIRCH—see Betula

Europhen (Not Euphorin, or Euporphin)

Diisobutylcresol Iodide; Iododiisobutylorthocresol; Isobutylorthocresol Iodide; Cresol Iodide; $28\% \text{ I} \cdot (\text{C}_4\text{H}_9)\text{C}_6\text{H}_3(\text{OCH}_3) \cdot (\text{C}_4\text{H}_9)\text{C}_6\text{H}_2(\text{CH}_3) \cdot \text{OI} = 452.26$.—Yellow, amorph. volum. powd.—SOL.: Eas. A., C., E., oils; insol. W., G.—MELT.: 110°C .—ACTION: Antisep.; Antisyph.; Alter.—USES: *Intern.*, phth., syphilis, fetid bronchitis, intest. putrefaction, chron. urethritis, etc.—*Extern.*, in skin dis., varicose veins & ulc., as 5%–10% oint., or 5% oily embrocation, or dust. powd., or pure.—DOSE: 0.2–0.3 Gm. (3–5 grn.).—*Inj.*, 0.03–0.1 Gm. ($\frac{1}{2} - 1\frac{1}{2}$ grn.) once p.d., in oily solut.—INCOMP.: Starch; metal. oxides; Hg salts; alkaline hydroxides & carbonates.—CAUT.: Keep fr. light, heat & damp.

Euscopol

Optically inactive scopolamine hydrobromide.— $\text{C}_{17}\text{H}_{21}\text{NO}_4 \cdot \text{HBr} = 384.19$.—Wh. cryst.—SOL.: W., A., acetone; stlty E.—MELT.: Abt 181°C .—ACTION: Sed.; Narcot.; Mydriatic.—USES: Pa-

ralysis agitans, clonic & tonic musc. spasms, neuralg.; also in scopolamine-morphine narcosis.—DOSE: 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) single, & 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.) p.d.—*Subcut.*, 0.0003 Gm. ($\frac{1}{200}$ grn.).—As *mydriat.*, in 0.1%–0.2% solut.

Eustenin

Theobromine Sodium-Sodium Iodide.—A mixt. of theobromine & NaI in molec. proportion.—Wh., somewhat hygrosc. powd.; alkali react.; rather bitter taste; cont. abt 51% theobromine, & abt 42% NaI.—SOL.: Eas. W.—USES: Arteriosclerosis, angina pectoris, chronic nephritis, aortic aneurism.—DOSE: 0.5–1 Gm. ($7\frac{1}{2}$ –15 grn.).—Decomp. on contact w. the air.

EUXANTHIN—see Acid Euxanthic

Euxanthone

1,7-Dioxyxanthone.— $C_{13}H_8O_4 = 228.13$.—Decomp. product of euxanthic acid ($C_{19}H_{16}O_{10} + H_2O$) obt'd fr. Indian Yellow (Puree).—Yellow cryst.—SOL.: A., E., alkalies.—MELT.: $240^\circ C$.

Euxenite—Mineral

OCCUR.: Arendal; Jølsten, Norway; near Tvedestrand.—COMPOS.: $(Ti_2O_5)_3(Y, Er, Ce)_2 \cdot (NbO_3)_6(Y, Er, Ce)_2$ w. $(Ti_2O_5)_3(UO)Fe \cdot (NbO_3)_6(UO)Fe$.—CRYST. SYST.: Rhomb.—COLOR: Brownish-black.—HARDN.: 6.5.—SP. GR.: 4.7–5.0.—USES: Source of rare earths & radioactive substances (e.g., 30% ytterbium earths, 3% cerium earths, 25% titanate acid, 25%–30% niobic & tantalate acids).

Exalgin

Methylacetanilid, B.P.C.; Methylphenylacetamide.— $C_6H_5N(CH_3).CH_3CO \cong 149.14$.—Fr. monomethylaniline & acetyl chloride.—Colorl., odorl. cryst.—SOL.: 60 cold, 2 boil'g W., 2 C., 10 E., v. eas. A., B.P.C.—MELT.: $101^\circ C$.—BOIL.: Abt $245^\circ C$.—ACTION: Analg.; Antirheum.—USES: Neuralg., migraine, angina pectoris, chorea, sciatica, locomotor ataxia, headache, etc.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).—MAX. D.: 0.4 Gm. (7 grn.) single, 1 Gm. (15 grn.) p. day.—ANTID.: 2 Gm. (30 grn.) salicylate acid followed by usual means of combating collapse.

Exodin

Mixt. of rufigallic acid derivatives; cont's diacetylrufigallic-acid tetramethylester, acetylrufigallic-acid pentamethylester, & rufigallic-acid hexamethylester.—Greenish-yellow, odorl., tast. powd.—SOL.: Diffic. in A.; insol. W.—ACTION: Cathartic.—USES: Acute & chronic constipation.—DOSE: Adults, 1–1.5 Gm. (15–24 grn.); childr., 0.5 Gm. ($\frac{1}{2}$ grn.).

EXTRA BLUE—see Methylene Violet

Extract Alkanet Merck—Inspissated, Soluble in Alcohol & Fats

Alkannin; Anchusin; Alcannin.—Color. matter fr. root Anchusa tinctoria, L. (Alkanet).—Dark-red, amorph., sltly acid powd.—SOL.: A., B., C., E., oils; in alkalies w. blue color.—USES: Color. galenicals, fats, & oils; in dental technic f. color. wax; in leather industry; in chem. analysis as indicator, chiefly in form of test paper (alkalies = green or blue color; acids = red).

do. Merck—Inspissated, Soluble in Fats & Benzin

Extract Apple Ferrated Merck—N.F. V

Crude Iron Malate; Extractum Ferri Pomatum.—Fr. fresh apple juice & iron.—ACTION: Hemat.—USES: Chlorosis & all affect. needing iron.—DOSE: Aver., 0.6 Gm. (10 grn.).

Extract Cannabis—U.S.P. X; B.P.

Fr. flower'g tops of pistillate plant, *C. sativa*, L. or of the variety *indica* (Indian Hemp).—ACTION: Nar.; Sed.; Analg.; Aphrod.—USES: Headache, summer diar., anorexia, gastrodynia, neural., rheum., gout, chorea, hysteria, mental depress., delir. trem., uterine hemorrhage, &c.—*Extern.*, corn cures, &c.—DOSE: 0.008–0.12 Gm. ($\frac{1}{8}$ –2 grn.); aver. dose 0.015 Gm. ($\frac{1}{4}$ grn.).—MAX. D.: 0.12 Gm. (2 grn.) single; 0.3 Gm. (5 grn.) p.d.—APPL.: 1:100 linim. or ointm. in local inflam., neuralg., or rheumat. pains.

EXTRACT COD-LIVER, ALCOHOL SOLUBLE—see Gaduol

EXTRACT FLUID KAU-KUI, MAN-MU, SCHAN-KI, or TANG-KUI—see Eumenol

EXTRACT, GOULARD'S—see Lead Subacetate, Solution

EXTRACT, INDIGO—see Sodium Indigotin-disulphonate

Extract Iris—B.P.C.

Iridin.—Fr. rhizome *Iris versicolor*, L.; must not be confounded w. the glucoside, also named iridin, fr. *Iris versicolor*.—Brownish powd.—SOL.: A.—ACTION: Cholag.; Cath.; Emetic; Diuret.—USES: Constip., amenor., & torpid liver; especially as a stimulant of biliary secretion.—DOSE: 0.06–0.2 Gm. (1–3 grn. in pills, at night.

Extract Licorice—U.S.P. X—Pure, Clearly Soluble

Fr. root *Glycyrrhiza glabra*, L. (Liquorice; Licorice).—Demulc., Expector.—USES: Chiefly to cover unpleas. taste of bitter mixt., infus., & decoct.

EXTRACT MALE FERN—see Oleoresin Aspidium

Extract Malt Merck—Dry, Powder

Cont's maximum amount diastase, dextrin, dextrose, protein bodies, & salts of barley.—ACTION: Eas. digested Food; Tonic; Dietetic; Expector.—USES: For children, convalesc. scrof. patients; dyspep., &c.; vehicle f. o. remed.; facilitates digestion of starchy foods because of its diastatic power.—DOSE: 4–15 Gm. (1–4 dr.) frequently w. o. tonics like cinchona, iron, &c.—CAUT.: Keep dry.

Extract Opium Merck—N.F. V

Not less than 19.5% or more than 20.5% morphine.—ACTION: Nar., Hypn., Anod., Stim.—USES: Pain, diar., dysent., cough, pneum., bronch., & pleur.; stop periton., peristalsis, enteritis, & typhilitis.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.).—MAX. D.: 0.12 Gm. (2 grn.) single; 0.5 Gm. (8 grn.) p.d.—*Extern.*, in suppos. cont. 0.05–0.1

Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.); 10% oint.; 0.2% collyria; 0.2%–1% inj.—**ANTID.**: Emetics, stomach siphon, potass. permang., atropine, tannin, friction, electricity. Give strong coffee, oxygen, brandy, &c.—**CAUT.**: Poison!

EXTRACT OVARY, DRIED, STANDARDIZED—see Ovaraden

Extract Pine Needles Merck

Fr. fresh needles of *Pinus sylvestris* & *Abies excelsa*.—**ACTION**: Diur.; Antisep.—**USES**: Dropsy, & genito-urinary dis.—**DOSE**: 0.2–0.4 Gm. (3–6 grn.) sev'l t.p.d.—**Extern.**, in baths (abt 250–500 Gm. [$\frac{1}{2}$ –1 lb.] per bath); also as appl. in prurigo & herpes circinatus.

Extract Suprarenal Glands

Hemostatic Extract Suprarenal Capsule (gland).—Brown, light particles.—**SOL.**: w. turb. in equal wt W.—**ACTION**: Vaso-constrictor; Astring.; Styptic.—**USES**: *Extern.*, in eye & nose

operations (prior to cocaine), conjunctivitis, vascular keratitis, keratoconjunctivitis, episcleritis, hay fever, glaucoma, capillary hemorrhages; w. cocaine as anesth. in all cases in which inflamed tissue impairs the action of cocaine; in surg. operations on eye to prevent hemorrhage & as hemostatic (in 6:20 solut.); *intraven.*, in acute cardiovascular paresis occur'g in infect. diseases; in chloroform asphyxia, &c.—**DOSE**: *Intraven.*, 4–8 cc. (1–2 fl. dr.) of 1% solut., 2 or 3 t.p.d. if required in cardiovascular paresis of infect. diseases.—**Extern.**, in 6%–30% soluts. as spray in bleeding & swellings in nose & throat, & partic. in hay fever (in 6%–12% aqu. solut.).—**CAUT.**: Solut. should be prep. fresh ea. time, w. freshly sterilized dist. W.

EXTRACTUM FERRI POMATUM—see Extract Apple, Ferrated

EYE STONE—see Copper Aluminated

F

FAHLERZ—see Tetrahedrite

FAIRY GLOVES—see Digitalis

FALSE CALUMBA—see *Coscinium*

FALSE HELLEBORE—see *Adonis Vernalis*

FALSE INDIGO—see *Baptisia*

FALSE SAFFRON—see *Carthamus*

FALSE UNICORN—see *Helonias*

FALSE WHITE CEDAR—see *Thuja*

FALSE WINTER'S BARK—see *Canella*

Farrant's Solution

Solut. 2 Gm. As_2O_3 , 50 Gm. acacia, 50 cc. W., & 50 cc. G.—**USES**: Preservative f. microscopic specimens.

FAST BLUE, ALCOHOL-SOLUBLE—see Induline, Alcohol-soluble

FAST BLUE, WATER-SOLUBLE—see Induline, Water-soluble

Fast Blue B—Alcohol-Soluble

Anilidophenylsafranine Hydrochloride.—Blue-black powd.—**SOL.**: A. w. violet color.—**USES**: Dyeing blue, & in lacquers & varnishes.

FAST GREEN—see Malachite Green

FAST GREEN J—see Brilliant Green

FAST RED D—see Amaranth

FAST SCARLET—see Benzopurpurine 4B

FAST YELLOW—see Tropacoline OO

FAT PONCEAU R—see Biebrich Scarlet R

FEDRIN = Ephedrine Sulphate

Fehling's Solution

Alkaline Solution Copper Tartrate.—Two soluts.: (a) *The Copper Solut.*: 34.66 Gm. of pure cryst. CuSO_4 in dist. W. to measure 500 cc.; (b) *The Rochelle Salt Solut.*: 173 Gm. of cryst. Rochelle salt & 50 Gm. of NaOH in dist. W. to measure 500 cc. Just before use, mix equal

volumes of the two soluts.—**USES**: Test for glucose (dextrose). 10 cc. of the mixed solut. = 0.05 Gm. anhydr. glucose (dextrose), $\text{C}_6\text{H}_{12}\text{O}_6$.—**CAUT.**: Keep the solutions separately in small, rubber-stoppered bottles.

Fennel—N.F. V; B.P.; Fr. Cod.

Large Fennel; Sweet Fennel.—Dried ripe fruit of cultivated varieties of *Foeniculum vulgare*, Miller, Umbelliferae.—**HABIT.**: Southern Europe; Western Asia; widely cultiv.—**CONSTIT.**: Volat. (4%–5%, B.P.C.) & fixed oils.—**USES**: Expector.; Carmin.; Galactag.; Stim.; Stomachic.—**Extern.**, in eye lotions; also used in cookery.—**DOSE**: 0.6–4 Gm. (10–60 grn.); aver. dose 1 Gm. (15 grn.).—**Fl' dextr.**, 2–4 cc. (30–60 M).

Fenugreek—B.P.C.

Seed of *Trigonella Fœnum-Græcum*, L., Leguminosae.—**HABIT.**: Egypt; Asia Minor; France; Germany.—**CONSTIT.**: Volat. oil; fixed oil (6%, B.P.C.); trigonellin; proteins (22%); pectin.—**USES**: Resolvent fomentations.—**Intrern.**, in hemorrhoidal affect. Chiefly in veterinary medicine.

FERAONITINE—see Aconitine fr. *Aconitum Ferox*

Fergusonite—Mineral

Yttrotantalite; Tyrite; Bragite.—**OCCUR.**: Ytterby, Sweden; Greenland; Norway; U. S.—**COMPOS.**: $(\text{NbTa})\text{O}_4\text{Yt}$ (cont. 30%–40% ytterbium earths).—**CRYST. SYST.**: Tetrag. pyram. hem.—**LUSTER**: Extern. dull; on fract. brilliantly vitr. & submetallic.—**COLOR**: Brownish-black.—**STREAK**: Pale-brown.—**FRACT.**: Subconch., brittle.—**HARDN.**: 5.5–6.—**SP. GR.**: 5.8 diminishing to 4.3 when largely hydrated.—**USES**: Source of Yt, Ni, Ta & He.

Fermentdiagnosticum

Glycyltryptophan Solution.—**USES**: Diagnostic test for gastric carcinoma. The bot. is filled to the mark w. filtered stomach contents & incubated f. 24 hrs, then 2–3 cc. of the liq.

are tested f. tryptophan—if this is found gastric carcinoma is to be suspected.

FERNAMBUCO—see Pernambuco

FERNAMBUCO PAPER—see Brazilin Paper

Ferratin

Sodium Ferrialbuminate, fr. ferrialbuminic acid (Schmiedeberg) prepared synthetically; 6% Fe.—Brown, tastel. powd.—SOL.: Dil. alkalies; insol. W., dil. acids.—ACTION: Hematinic. Claimed to be an eas. absorbable organic iron comp.—USES: Chlorosis, anemia, debility, &c.—DOSE: 0.3–1 Gm. (5–15 grn.) 3 t.p.d. w. milk or o. liquid food; children, half as much.—INCOMP.: Acids.

FERRATIN SOLUTION, AROMATIZED—see Ferratose

Ferratose

Ferratin Solution, Aromatized.—0.3% Fe.—USES: Anemia, chloros., debil., etc.—DOSE: 3–4 tablesp. p.d.; childr. 3–4 teas. p.d.

Ferreira da Silva's Solution—Test for Alkaloids

Solut. 1 Gm. ammonium selenite in 20 Gm. conc. H₂SO₄.—Gives characteristic color-reactions w. many alkaloids, &c.

FERRIC SALTS—see under Iron

FERRIC-CHLORIDE-ANTIPYRINE—see Ferropyrine

Ferrichthylol

Ichthylol derivative cont. abt 2.5% Fe.—Brownish-black, voluminous, non-hygroscopic, almost odorl. & tastel. powd.—Insol. in acids, alkalies, & ordinary solvents.—ACTION: Alterative, Antiseptic, Hematinic, Tonic.—USES: Anemia, chlorosis, etc.—DOSE: 1–2 Gm. (15–30 grn.).

FERRIPYRINE—see Ferropyrine

FERROCERIUM—see Pyrophorous Alloy

FERROPLATINOUS CYANIDE—see Platinum & Iron Cyanide

Ferropyrine

Ferric-Chloride-Antipyrine; Ferripyrine.—(C₁₁H₁₂N₂O)₃.(FeCl₃)₂ = 888.94.—Yellowish-red cryst. powd.; 64% antipyrine, 36% FeCl₃.—SOL.: 5 cold, & 9 hot, W.; A.; insol. E.—ACTION: Styptic; Antisep.; Astring.—USES: Intern., anemia, chlorosis, migraine, headache, neural., gastric hemorrh.—Extern., gonorr., nosebleed, bleeding following tooth extraction, chron. otorrhea, granulations & polypi in the tympanic cavity, &c.—DOSE: 0.3–1 Gm. (5–15 grn.).—APPL.: 1%–1.5% solut. f. gonorr.; 1%–20% solut. or pure on tampons f. hemorrhages.—INCOMP., alkalies, bicarbonates, carbonates.

FERRO-SODIUM NITROSOBETANAPHTHOLMONO-SULFONATE—see Naphthol Green B

FERROSO-FERRIC OXIDE—see Iron Oxide, Black

FEROUS SALTS—see under Iron

Ferrovarial

Iron comb'd w. ovarial substce.—USES: Severe hemorrhages.—DOSE: 0.05 Gm. (¾ grn.).

FERRUGO—see Iron Oxide, Red, Ignited

FEVER BARK, AUSTRALIAN—see Alstonia

Fibrin—Fr. Blood

Yellowish-brown, horny masses; form gelat. solut. w. acid. W.—SOL.: Slowly in dil. caustic alkalies, partic. on gently warming; cont's 13%–17% N.—USES: In powd. form f. treat'g bone fractures, pseudoarthroses, hemorrhages, etc.—Techn., f. refractometric determ. of pepsin in gastric juice.

do. —Fr. Plants

Gluten; Gluten-fibrin.—Fr. seeds of grain.—CONSTIT.: Gliadin, gluten-fibrin, mucin, & gluten-casein.—Horny, brownish-yellow masses, or yellowish-gray powd.—SOL.: Hot dil. A.; alkalies, & dil. acids.—ACTION: Amylolytic; Nutr.—USES: Chiefly techn.—See also Gluten.

Fibrin-Ferment

A proteid body (globulin) occur'g in blood serum, chyle, lymph, &c., which causes coagulation in liquids cont'g fibrinogen & in exudates, by caus'g formation of fibrin.—Tough, elastic flakes.—SOL.: In 5%–10% solut. NaCl.

Fibrinogen

Albuminoid substce fr. blood serum which is converted by fibrin-ferment into fibrin, & thus causes coagulation.—Yellowish-gray powd.—SOL.: W., & in solut. NaCl.

Fibroin

Nitrogenous prin. (albuminoid substce) & chief constit. of silk (abt 70%).—Pale-yellow mass resembl. silk.—SOL.: Conc. solut. KOH; more eas. conc. mineral acids, & in ammoniacal nickelous oxide solut.; insol. W., A., E., dil. alkalies.

Fibrolysin

Sterilized Solut. Thiosinamine & Sodium Salicylate Merck.—CS(NH₂)NHC₃H₅ + ½(C₆H₄[OH]COONa) + aq.—Comp'd of 1 molecule sod. salicyl. & 2 mol. thiosinamine.—Mktd only in ampuls ea. cont'g 2.3 cc. (35 M)—equal to 0.2 Gm. (3 grn.) thiosinamine—of a 15% aqu., colorl. solut. of the comp'd, & carefully sterilized.—ACTION: Cicatricial Resolvent.—USES: As of thiosinamine in strictures, ankyloses, adhesions, scars, middle ear disease, rheumatoid arthritis, keloids, & wherever scar or fibrous tissue produces mechanical disability or pain; partic. well adapted f. hypodermic or intramusc. use.—DOSE: The contents of one ampul, ev. day or ev. second day; childr. in proport., but not less than ½ ampul ev. 2–3 days.—CAUT.: Solut. unstable if exposed to light & air.—Contraindicated in the aged with arterial disease; also in active inflammatory processes, & in otorrhea or where ear discharge has recently ceased.

do. —Veterinary

In ampuls cont. 11.5 cc. ea.—USES: In thickening of the skin, crural phlegmons, sclerosis, tendonitis, vaginitis, & tumefactions.—DOSE: For dogs, inject the contents of 1 ampul (= 1

Gm. [15 grn.] thiosinamine), & in larger animals, of several ampuls, at one time.

FILICIN—see Acid Filicic

FILIX MAS—see Aspidium

Filmaron

Aspidinolfilicin.— $C_{47}H_{54}O_{16}$ = 874.67.—Amorph. acid obt'd fr. extr. male fern.—Light-yellow powd.—SOL.: All proport. E., B., CCl_4 , amyl A., acetic acid, acetone, alkalies & alkali carbonates (but w. part. decomp.); diffic. cold A., methyl alcohol, benzin; insol. W.—MELT.: 60° C.—Efficient Tenuicide.—USES: Effective in removing tapeworms, bothrioccephalus, ankylostoma, ascaris, etc., & remarkably free fr. the drawbacks attending the administration of the usual extract of male fern.—Best given in the form of *Filmaron Treatment* (q.v.).—DOSE: 0.5–0.75 Gm. (8–12 grn.) followed by a cathart.—Mktd only as *Filmaron Oil* & *Filmaron Treatment* (q.v.).—VETER. MED.: Dogs, 0.2–1 Gm. (3–15 grn.) accord. to size; cattle, 50–100 cc. (12–25 fl. dr.) of a 5% filmaron-magnesium solut. intraven.

Filmaron Oil—In Capsules

10% solut. filmaron in castor oil; mktd in capsules.—ACTION: Anthelm.

do. —Veterinary

Mktd in gelat. caps. ea. cont. 0.2 Gm. (3 grn.) filmaron dissolv. in 0.4 cc. (7 M) expressed oil almond.

Filmaron Treatment

Supplied in boxes holding 3 dark capsules, cont'g 0.9 Gm. (13 grn.) filmaron in olive oil solut. in all, & 12 white capsules ea. cont. abt 2.5 cc. (40 M) castor oil, the whole sufficing for one treatment.

Fischer's Solution—Test for Cobalt

Aqu. solut. KNO_2 acidul. w. acetic acid.—Gives a yellow ppt. of cobaltic potassium nitrite w. cobalt salts.

FISCHER'S YELLOW—see Cobalt & Potassium Nitrite

FISH GLUE—see Isinglass

FISH-BERRY—see Coccus

FLAG LILY—see Iris

FLAKE LEAD—see Lead Carbonate

FLAKE WHITE—see Bismuth Subnitrate

Flaviciid

2,7-Dimethyl-3-dimethylamino-6-amino-10-methylacridinium Chloride.—Reddish-brown powd.—SOL.: Eas. hot or cold, W., A.—ACTION: Antisept.; Disinfect.—USES: Infected wounds, eczema, furunculosis, phlegmons, etc.; also locally in diphtheria; as aqu. solut. for washes, on bandages, & f. injections in treat'g local infectious processes.—APPL.: Us'ly as 1:5000 solut., but up to 1:500 may be employed.

FLAVINE—see Acriflavine

FLAXSEED—see Linseed

FLEA MINT—see Pulegium

FLEABANE—see Erigeron

Flemming's Chromo-Acetic Acid

1 Gm. glac. acetic acid, 2 Gm. CrO_3 & 1000 cc. W.—USES: Fixing animal & vegetable tissues which are to be subsequently stained w. carmine & hematoxylin.

do. Chromo-Aceto-Osmic Acid

Weak Solut.: 50 cc. 1% aqu. solut. CrO_3 , 20 cc. 1% acetic acid, 20 cc. 1% solut. osmic acid, & 110 cc. W. Strong Solut.: 30 cc. 1% aqu. solut. CrO_3 , 8 cc. 2% solut. osmic acid, & 2 cc. glacial acetic acid.—USES: Fixing animal & vegetable prep's, partic. f. observ. karyokinetic processes.

Flesch's Chromo-Osmic Acid

0.1 Gm. osmic acid, 0.25 Gm. CrO_3 , & 100 cc. W.—USES: Fixing anatomical specimens.

Flint—Mineral

Silex.—COMPOS.: Crystalline hydrous SiO_2 .—LUSTER: Barely glistening, subvitr.—COLOR: Gray, smoky-brown, brownish-black.—FRACT.: Conch. w. sharp cutting edge.—USES: Manuf. of flint glass & stone ware.—See also Silica.

FLORES MARTIS—see Iron Chloride, Sublimed

FLOWER-OF-PARADISE—see Henna

FLOWERING DOGWOOD—see Cornus

FLOWERING SPURGE—see Euphorbia Corollata

FLOWERS OF ANTIMONY—see Antimony Oxide

FLOWERS OF SULPHUR—see Sulphur, Sublimed

FLOWERS OF TIN—see Tin Oxide, Stannic

FLOWERS OF ZINC—see Zinc Oxide, Technical

FLUID MAGNESIA—see Solution Magnesium Bicarbonate

Flumerin

D i s o d i u m -hydroxymercurifluorescein. —

$NaOOC.C_6H_4.C_6H_2.HgOH.ONa(O).C_6H_3O = 592.78$.—Red, odorl., somewh. hygrosc. powd.—SOL.: Abt 10 hot W.; insol. A., C., E.—ACTION: Antisyphilitic.—USES: Syphilis.—DOSE: 0.2–0.35 Gm. (3–6 grn.) in 2% aqu. solut. intravenously.—INCOMPAT.: Acids, halides, salts of many alkaloids, & local anesthetics. Solut. f. intraven. use should be made w. water only, & not w. physiol. NaCl solut.

Fluorene

Orthodiphenylenemethane.— $C_6H_4.CH_2.C_6H_4 = 166.15$.—Fr. coal tar, or by heat'g ellagic acid w. Zn-dust.—Wh. leaflets; violet fluorescence.—SOL.: Hot A., B., CS_2 , E.; sltly sol. cold A.—MELT.: 114° – 115° C.—BOIL.: 294° – 295° C.

Fluorescein Merck

“Resorcinolphthalein”; Dioxyfluorane; “Dire-sorcinolphthalein”; Tetraoxophthalophenonahydride.— $O:(C_6H_3OH)_2.C_6H_4.CO = 332.20$.—Fr. phthalic anhydride & resorcinol by heat. till viscid.—Red, cryst. powd.—SOL.: Alkal. solut. (alkal. solut. red, by transmit. light; fluoresc. bright green); dil. acids, boil. A., hot glac. acetic acid; insol. W., B., C., E.—Decomp. above 290° C. without melt.—USES: Detect. foreign bodies imbedded in cornea; diagnos. corneal lesions & impervious strictures

of nasal duct, employing a solut. 0.5 Gm. (8 grn.) w. 1 Gm. (15 grn.) of sod. bicarb. in 30 cc. (1 fl. oz.) W.—*Techn.*, as indicator, & as test f. Br (Baubigny) & blood (Fleig).

Fluorescein Paper

Zellner's Paper.—Paper charged w. a black, substantive, neutral dye, & then impregnated w. a fluorescein solut. & dried.—Exceedingly sensitive test f. alkalies, & partic. f. ammonia in spring or well waters, & where o. alkalies also present; also f. use in dark or strongly colored liquids.—*Sensitiveness*: For alkalies, 1:3,000,000; for NH_3 , 1:5,000,000.— $\text{PH} = 4.0-5.0$.

Fluorescein-Sodium

Uranine NIA.—Sod. salt of fluorescein.—Red powd.—*SOL.*: Eas. W., A., w. yellow color & intense green fluores.—*USES*: Test f. renal function, to determ. actual death (Icard), & also like fluorescein.

Fluorescein-Zinc

$\text{ZnC}_{20}\text{H}_{10}\text{O}_5 = 395.55$.—Reddish-yellow powd.—*SOL.*: Diffic. W.—*ACTION*: Bactericide.—*USES*: In diplobacillus-conjunctivitis.—*APPLIC.*: In fine powd. to conjunctival sac.

Fluorescin Merck

Resorcinolphthalin; Fluoresceinic Acid Anhydride.— $\text{O}:(\text{C}_6\text{H}_3.\text{OH})_2:\text{CH}.\text{C}_6\text{H}_4.\text{CO}_2\text{H} = 334.21$.—Fr. fluorescein by heat'g w. NaOH & Zn-dust.—Bright-yellow powd.; readily oxidizes to fluorescein.—*SOL.*: A., E.—*USES*: Dye; diagnos. corneal lesions like fluorescein (1 drop of a 2% solut. made w. aid of sod. bicarb.); also as test f. oxydases.

FLUORITE—see Fluorspar

Fluorspar—Mineral

Fluorite.—*COMPOS.*: CaF_2 .—*CRYST. SYST.*: Reg.—*LUSTER*: Vitr.—*COLOR*: Alm. any color.—*STREAK*: Wh.—*FRACT.*: Flat conch. splintery, brittle.—*HARDN.*: 4.—*SP. GR.*: 3.01–3.25; 3.18 cryst.—*USES*: Prep. HF.

Flux, Black

Potass. carb. w. carbon.—Black powd.—*USES*: As reducer in assaying.

do. White

Potass. carb., nitrate, & nitrite; strong oxidizer.—*USES*: To facilitate the separation of certain fusion products.

FOG-FRUIT—see Lippia

Folin's Solution—Test f. Glucose (Dextrose)

(a) Diss. 5 Gm. cryst. CuSO_4 in 100 cc. hot W. & when cool add 60–70 cc. glycerin.—(b) Diss. 125 Gm. anhydrous K_2CO_3 in 400 cc. W.—For use 1 part solut. (a) is mixed w. 2 parts solut. (b), & the mixt. boiled w. the liq. to be tested.

Folin-McElroy's Solution—Test f. Glucose (Dextrose)

Diss. 13.5 Gm. cryst. CuSO_4 in abt 200 cc. W., & pour into a solut. made fr. 100 Gm. sod. pyrophosphate, 30 Gm. Na_2HPO_4 , & 50 Gm.

dry Na_2CO_3 in abt 1000 cc. W. by aid of a gentle heat.—In use add 5–8 drops (not more) urine to 5 cc. of the solution to be tested, & boil 1–2 minutes.

FOOD OF THE GODS—see Asafetida

FORMAL—see Methylal

Formaldehyde Merck—Reagent—Neutral, 37%

$\text{H}.\text{CO}.\text{H} = 30.02$.—Clear, colorl. liq.; pungent odor.—Clearly misc. W., A.—Neutral to litmus paper.

MAXIMUM OF IMPURITIES

Non-vol. Matter.....	0.040%
Acid (as CHOOH).....	0.15%
Chloride (Cl).....	0.000%
Sulphate (SO_3).....	0.003%
Heavy Metals.....	0.000%

USES: Making colloidal gold solut's; reducer in determining Au, Hg, & o. metals; titrat'g ammonium citrate & amino-N in blood; in microtitrations; detect'g HNO_3 , emetine; reag. f. proteids (Acree), Au & Ag (Armani), peppermint oil (Arzberger; Umney), Cu (Bach), abrastol (Barral; Vicario), alphanaphthol (Dané), cinchona alkaloids & benzoyl (Denigès), phenols (Endemann; Pougnet), H_2O_2 (Feder), bile pigments (Gluzinsky), urea (Goldschmidt), cholesterin & benzoyl peroxide (Golodetz), methylamine (Henry), oxydimorphine (Hoshida), blood (de Jager), albumin (Jolles; Polacci), morphine (Kobert), indol (Konto), alkaloids (Linke), salicylic acid (McCrae; Zipper), diacetic acid (Mörner), antipyrine & cryogenin (Patein), milk (Schar-dinger), nicotine (Schindelmeister), resorcinol (Silbermann), glucose (Strzyzowski), sesame oil (Tocher), guaiacol & creosote (Vitali), & also as a diabetes test (Kühn).

Formaldehyde Merck—Solution—U.S.P. X

Oxymethylene; Formic Aldehyde; Formyl Hydrate; Methanal; Methyl Aldehyde; Formalin; Formol.— $\text{H}.\text{CO}.\text{H} = 30.02$.—Fr. methyl A. vapors by oxid'n.—Clear, colorl. liq.; pung. odor; caustic taste; vapors are intensely irritant to mucous membranes; cont's methyl or ethyl A., or both.—*Misc.*: W., & A.—*ACTION*: Antisep.; Bactericide; Disinf.; Anti-hydrotic.—*USES*: Non-corros., surg. & general antisep. f. wounds, abscesses, &c.; f. clothing, bed-linen, walls, &c.; preserv. of collyria & anatomical or botanical prep.—Locally (20% formaldehyde) in inoperable malignant growths, in inoperable carcinoma as 1.5%–2% solut.; puerperal septicemia, 500–750 cc. 1:5000 solut. in normal NaCl solut. intravenously; intraven. also in rabies; inhalation of 6% solut. in tuberc. pleurisy & empyema of tuberc. origin; inhal. in whoop-cough; 2%–4% solut. in G. locally in follicular tonsillitis, aphthous ulcerative & gangrenous stomatitis, tuberculous ulcers, tinea tonsurans, & acute gonorrh.; laryngeal papilloma; nasal inhal. of 10 drops on cotton in coryza & early stages of bronchitis; 1–2:1000 solut. in purul. ophthalm. & conjunct.; gonorrheic cervical & vaginal catarrh; soft chancre; herpes tonsurans; 1%–2% solut.

in perspiring feet & o. excessive perspiration; in acute pulpitis, incipient periostitis, & caries; also intern. in diphth., scarlet fever, erysip., cystitis, & tonsillitis.—APPL.: In vapor or solut. In surgery, 0.25%–0.5% solut.; general antiseptis, 0.25%–2% solut. or in vapor; as inhal. in phthisis, whoop-cough, etc. 2% spray or inhalat'n; in eye lotions, 0.05% solut.—*Techn.*, f. hardening anat. specimens, 4%–10% solut.; f. disinfect. rooms, utensils, books, clothes, furs, linen, sponges, &c., solut. up to 10%; walls, ships, rooms, stables, cellars, etc. (f. 1000–1500 cubic feet of room space: 12 oz. chlorinated lime, 4 oz. water, 1 lb. formaldehyde; or 6 oz. caustic soda, 1 lb. formaldehyde; or 2 oz. aluminum sulphate, 8 oz. formaldehyde, & pour over 1 lb. unslaked lime; or mix 1 pint formaldehyde w. 1½ fl. oz. H₂SO₄ & pour on 10 oz. Na₂Cr₂O₇ in a large enamel'd kettle); as germicide & fungicide f. plants & vegetables; destroying flies (1 fl. oz. with a teaspoonful sugar to 1 pint water) & o. insects; in blackleg disease of potatoes, & stinking smut of winter wheat; tanning & preserv'g hides; manuf. of phenol & cresol condensation products, galalith, etc.; waterproofing; manuf. artif. silk & cellulose esters, dyes, glass mirrors, explosives; dyeing & mordanting fabrics; preserv'g & coagulat'g rubber latex; embalming fluids; as reducer in recovering Au & Ag; in photography f. hardening gelatin plates & papers, toning gelatin-chloride papers, chrome printing, & as developer; purifying vats; macerating seed-fruit; prevent'g mildew in wheat & spelt, & rot in oats.—INCOMP. Ammonia, alkalies; tannin; iron preparations; gelatin; bisulphites; salts of Cu, Fe, & Ag; H₂O₂; I; KMnO₄; combines directly w. albumin, casein, gelatin, agar, & starch, to form insol. comp'ds.—ANTID.: Solut. ammon. acetate; ammonia by inhal.; stomach siphon; warm baths.

FORMALDEHYDE ACETATE—see Methylene Diacetate

FORMALDEHYDE-GELATIN—see Glutol

Formaldehyde-Sodium Bisulphite

O:(ONa).O.CH₂OH + H₂O = 152.11.—Wh., odorl. cryst.—SOL.: Eas. W.—USES: Arthritis.—*Techn.*, fotogr.—DOSE: In gout, 5 cc. (75 M) of a 10% solut. intravenously p. day.

FORMALDEHYDEACETAMIDE—see Formicin

FORMALIN—see Formaldehyde

Formaloin

Condens. prod. of formaldehyde & aloin.—Yellow powd.—SOL.: Alkalies; v. sltly W.—USES: As of aloin, but is not so bitter & is more slowly absorbed.

FORMAMIDATED CHLORAL—see Chloralformamide

Formamide Merck

Methanamide.—H.CO.NH₂ = 45.04.—Fr. ethyl formate by NH₃.—Colorl., oily liq.—SOL.: v. eas. W., A.—SP. GR.: 1.15 at 15° C.—BOIL.: Abt 200° C., w. part. decomp.

FORMAMINE—see Formin; Methenamine

Formanilide

Phenyl Formamide.—C₆H₅.NH.CHO = 121.10.—Fr. aniline & formic acid by boil.—Colorl. to yellowish cryst.—SOL.: W., A.—MELT.: 46° C.—BOIL.: 284° C.—ACTION: Analg.; Anesth.; Antipyr.; Hemost.—USES: *Intern.*, polyarthrit, malaria, typhoid.—*Extern.*, 20% solut. said to produce local anesth. in 1 hr.—DOSE: 0.12–0.25 Gm. (2–4 grn.) sev'l t.p.d.—INJ.: 1 cc. (15 M) of a 3% solut. in W.—APPL.: 50% tritur. w. lycopodium by insuffl. in throat affect.; 2%–3% solut. f. ureth. anesthesia; 20% solut. as loc. anesth.

FORMANOL—see Helmitol

FORMIC ALDEHYDE—see Formaldehyde

FORMIC ALDEHYDE, POLYMERIZED—see Paraformaldehyde

Formicin

Formaldehydeacetamide.—CH₃.CO.NH.CH₂.OH = 89.08.—Colorl., v. hygroscop. mass, hence mkt'd only as a sltly yellowish, syrupy, liq.—SOL.: Eas. W., A., C., G.; alm. insol. E.—SP. GR.: 1.14–1.18 at 15° C.—ACTION: Antisept.; Disinf.; Bactericide.—USES: Disinf. inj. in tuberc. & non-tuberc. joints, tissues & abscesses, & chron. rheum. w. effus., & as wash in cystitis, tuberc. ulcers; disinf. skin, hands, & surg. instruments; as surg. bandages, &c.—APPL.: 1%–2%–5% solut.

Formidine

Methylenedisalicylic-Acid Iodide.—C₁₅H₁₀O₆I₂ = 540.00 (?).—Reddish-yellow cryst., tastel. powd., 47% I.—SOL.: Alkaline soluts.; insol. W., acids, & A.—ACTION: Antisept.—USES: Inst. of iodoform, intern. & extern.—DOSE: As intern. antisept., 0.06–0.3 Gm. (1–5 grn.).

Formin

Methenamine U.S.P. X, or Hexamethylenamine or Hexamethylenetetramine, Merck; Formamine; Hexamine, B.P.C.—(CH₂)₆N₄ = 140.16.—Wh. cryst. powd.—SOL.: Eas. W.; eas. A. & C.; alm. insol. E.—Sublimable.—ACTION: Active Genito-Urinary Antisept.—USES: Bacterial urinary dis.; infect. of upper air passages; colds & bronchitis, typhoid, scarlet fever, prophylactic f. cystitis; pneumonia, gastric ulcer, herpes, gout & pyelitis; colitis, duodenitis, & pyloric ulcer, & to prevent post-operative tympanitis; diabetic coma; noct. enuresis; coryza, acute pharyngitis, laryngitis, tracheitis, & cough; intern. middle ear dis., peritonitis, & bronchial pus; steriliz'g bile & o. body secretions; also in prophylaxis of bowel affect., gall-bladder dis., enteric fever, post-typhoid states, cerebrospinal affect., gonorrh., & pneumococcic arthritis; prevents development of typhoid cystitis, & destroys infectiousness of typhoid urine. Exerts an antiseptic action thro. elimination via the mucous membrane.—DOSE: 0.3–1 Gm. (5–15 grn.) 2–3 t.p.d. w. much W. To increase the germicidal action in bacterial urinary diseases the best results are obt'd when sodium biphosphate is given in doses of 1–1.3 Gm. (15–20 grn.) in sweetened W., frequently repeated till urine acid; the biphosphate should

not, however, be given conjointly with the formin but alternately with it; in colds & bronch., 0.6 Gm. (10 grn.) 4 t.p.d. *Intravenously*, in typhoid, pneumon., nephritis, liver dis., & broncho-pneumon., 0.25-2 Gm. (4-30 grn.) but not more, in 25% solut.

do. —Tablets, 5 Grains, & 7½ Grains, Each

FORMIN SALICYLATE—see Saliformin

FORMOL—see Formaldehyde

FORMONITRILE—see Acid Hydrocyanic

FORMOSA CAMPHOR—see Camphor

FORMYL HYDRATE—see Formaldehyde

"FORMYL TRIBROMIDE"—see Bromoform

"FORMYL TRICHLORIDE"—see Chloroform

FORMYL TRIIODIDE—see Iodoform

FOSSIL FLOUR—see Earth, Infusorial

FOWLER'S SOLUTION—see Solution Potassium Arsenite

FOXGLOVE—see Digitalis

Frangula—N.F. V; B.P.C.

Buckthorn; Alder (European) Buckthorn; Black (Alder) Dogwood; Berry Alder; Arrow Wood; Persian Berries.—Dried bark of *Rhamnus Frangula*, L. *Rhamnez*; (matured at least 1 yr before being used, B.P.C.).—**HABIT.**: Europe; Russian Asia (except far north); Mediterranean coast of Africa.—**CONSTIT.**: Frangulin (rhamnoxanthin); emodin, frangulic acid; isoemodin; resin; tannin; coloring matters.—**ACTION**: When fresh, Emetic; when old, efficient Purgat., Tonic, & Diuret.—**USES**: Chronic constip.—**DOSES**: 0.6-4 Gm. (10-60 grn.) in powd.; aver. dose 1 Gm. (15 grn.).—**Aqu. extr.**, 0.2-0.6 Gm. (3-10 grn.).—**Fl'dextr.**, 0.6-4 cc. (10-60 M).

Frankenia

Yerba Reuma.—Herb of *Frankenia grandifolia*, Cham. & Schlecht., *Frankeniaceæ*.—**HABIT.**: California.—**CONSTIT.**: Astring. principle; salines.—**ACTION**: Astring.; Tonic.—**USES**: Catarrh. affect.; leucor., &c.; & as injection.—**Dose**: **Fl'dextr.**, 0.6-1.3 cc. (10-20 M).

FRANKINCENSE—see Olibanum

Franklinite—Mineral

OCCUR.: Franklin Furnace, N. J.; Germany.—**COMPOS.**: (FeO)₂(Fe, Mn, Zn).—**CRYST. SYST.**: Reg.—**LUSTER**: Metallic to dull.—**COLOR**: Iron black.—**STREAK**: Reddish-brown or black.—**FRACT.**: Conch. to uneven; brittle; sltly magnetic.—**HARDN.**: 5.5-6.5.—**SP. GR.**: 5.07-5.22.—**USES**: Most important American zinc ore; source of Mn used in making manganese steel; in paints.

Fraserin (Concentration)

Fr. root *Fraseria Walteri*, Mich. (American Colombo).—Brown powd.—**ACTION**: Bitter Tonic; Lax.—**USES**: Domestic medic., & by the Eclectics as appetizer & tonic.—**Dose**: 0.06-0.2 Gm. (1-3 grn.).

Fraude's Solution—Test for Alkaloids

Aqu. solut. (abt 20%) perchloric acid.—Gives on boil. w. aspidospermine a red, w. brucine a madeira red, & w. strychnine a reddish-yellow, solut.; no color with caffeine, coniine, atropine, nicotine, veratrine, or the cinchona or opium alkaloids.

Fraxinus—N.F. IV

White Ash.—Bark of *Fraxinus americana*, L., *Oleaceæ*, & prob. of o. spec. of *F.*—**HABIT.**: Canada & eastern U. S.—**ACTION**: Emenag.; Febrif.—**USES**: Amenorrh., & menstrual derangements & fevers.—**Dose**: **Aver.**, 2 Gm. (30 grn.).—**Fl'dextr.**, 1-4 cc. (15-60 M).

FRENCH CHALK—see Talc, Purified

FRENCH MERCURY—see Mercurialis

FRENCH MIXTURE—see Solution Iodine, Phenolated

FRENCH ROSE—see Rose, Red

FRENCH SAFFRON—see Saffron

FRIAR'S BALSAM—see Balsam, Traumatic

FRIAR'S COWL—see Aconite

Friedenwald-Ehrlich Diazo Test

(a): 0.5 Gm. NaNO₂ & 100 cc. W.; (b) 0.5 Gm. *p*-aminoacetophenone, 50 Gm. HCl, & 1000 cc. W.—For use mix 1 vol. solut. *a* w. 50 vol. solut. *b*. For the test mix eq. vols. urine & test solut. & add a little NH₄OH—on shak., if urine pathological (typhoid, phthisis), the liquid, or foam result'g fr. shak'g, becomes red.

Friedländer's Hematoxylin-Alum-Glycerin

Solut. 2 Gm. hematoxylin in 100 cc. A., mixed w. solut. 2 Gm. alum in 100 cc. G. & 100 cc. W.—**USES**: Rapidly staining sections & masses f. microscopy.

do. Picrocarmine

Solut. 1 Gm. carmine, 1 cc. NH₄OH, & 50 cc. W. w. sufficient sat. solut. picric acid to cause permanent turb.; then 2 drops phenol added.—**USES**: As of Ranvier's picrocarmine.

FRINGE TREE—see *Chionanthus*

Fröhde's Solution—Test for Alkaloids

Solut. 0.1 Gm. sod. molybdate in 100 cc. conc. H₂SO₄.—Gives color reactions w. many alkaloids (see Table of Reactions of More Important Alkaloids & Glucosides, pp. 560-563).

Frommherz's Solution—Test for Glucose (Dextrose)

Solut. 41.76 Gm. cryst. CuSO₄, 20.88 Gm. potass. bitartrate, & 10.44 Gm. KOH in 1000 cc. W.—Reduced by glucose (dextrose).

FROSTWORT—see *Helianthemum*

d-FRUCTOSE—see Levulose

FRUIT SUGAR—see Levulose

FUCHSIA—see Methylene Violet

FUCHSIACINE—see Fuchsine, Dye

Fuchsine Merck—Medicinal

"Basic" Fuchsine; Rosaniline & Pararosaniline Hydrochloride. — $(C_6H_4NH_2)_2 \cdot C : C_6H_4NH \cdot HCl + (NH_2)C_6H_3(CH_3) \cdot C(C_6H_4NH) : C_6H_4NH \cdot HCl$. — Green, lustr. cryst. — SOL.: W. w. red color; A., amyl A. — ACTION: Germicide; Antisept.; Antinephr. — USES: *Intern.*, trypanosomiasis (said to be superior to trypan red & brilliant green); nephr.; said to reduce anasarca & arrest albumin. — *Extern.*, chron. ulcer of leg, soft chancre. — *Chem.*, as test f. bile pigments (Baudouin), aldehydes (Blaser); Gayon; Prud'homme; Schiff [see Schiff's Solut.]; Tolman, linen & cotton (Böttger); acetone (Chautard), fats (Ferraro), ketones (Gayon), mineral acids (Griggi), volat. oils (Hirschsohn), NO_3 (Jorissen), textile fibers (Liebermann), benzin (Mennechet), rapeseed oil (Palas), A. (Puscher), HCl (Velden), & sulphites (Votocek). — DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) sev'l t.p.d. in pills. — APPL.: In leg ulcer & soft chancre, as 5% oint. (anhydr. lanum) w. 10% oil eucalyptus; later, 1% oint. without oil. Also as antisept. & surg. dress. as gauze soaked in a 1:1000 solut. — CAUT.: Do not confound w. *Fuchsine Dye*.

do. —Dye—Large & Small Cryst.

Magenta; Roseine; Aniline Red; Rubine; Aza-leine; Solferino; Erythrobenzin; Fuchsiacine; Harmaline; Rubianite. — Rosaniline hydrochloride, acetate, or more rarely, sulphate, often admixed w. the correspondingsalts of pararosaniline. — The hydrochloride has the formula $(C_6H_4NH_2)_2 \cdot C : C_6H_4NH \cdot HCl = 323.63$, & forms large or sm., well formed cryst. w. green color like that of cantharides; the sulphate forms a cryst. powd. w. green luster; the acetate forms irregul. lumps w. green luster. — SOL.: W. w. red color; v. eas. in hot W., A., & partic. in amyl A. — *Techn.*, dyeing silk, wool, & leather bluish-red direct; cotton, after mordant. w. tannin & tartar emetic; also f. staining tubercle bacilli (methylene blue as contrast color).

FUCHSINE, "BASIC"—see Fuchsine, Medicinal

Fuchsine Paper

Wh. paper impregn. w. an alcoh. solut. fuchsine, & dried. — USES: Detect. SO_2 (decolorizes). — Paper impregnated w. a fuchsine solut. w. H_2SO_4 added until it has just lost its red color & appears yellow (Kroupa's Paper) is an exceed. sensit. test f. free NH_3 (red color).

FUCHSINE S—see Ruby S

Fucus—N.F. V; B.P.C.

Bladder-wrack; Sea-wrack; Bladder Fucus;

Kelp-ware; Black-tang; Cut-weed; Sea-oak. — Dried thallus of *Fucus vesiculosus*, L., *F. serratus*, L., or *F. siliculosus*, L., *Fucaceæ*. — HABIT.: Atlantic & Pacific Oceans. — CONSTIT.: Algin; iodides (abt 0.01% I) & bromides; mannit; an odorous oil; cellulose. — ACTION: Alter.; Antifat. — USES: Scrofula, obesity, bronchocele, &c. — DOSE: 2–8 Gm. (30–120 grn.) in decoct.; aver. dose 0.6 Gm. (10 grn.). — Fl' dextr., 2–8 cc. 30–120 M. — Hydroalcoh. extr., 0.2–0.6 Gm. (3–10 grn.).

FULLER'S-HERB—see Saponaria

FUMARINE—see Protopine

Fumitory—Fr. Cod.

Whole plant *Fumaria officinalis*, L., *Fumariaceæ*. — HABIT.: Europe; adventitious in U. S. — CONSTIT.: Fumarine; fumaric acid. — ACTION: Alter.; Tonic; Diaphor.; Aper. — USES: Skin dis. & scrofulous affect. — DOSE: Aqu. extr. 0.6–4 Gm. (10–60 grn.).

Furfural

Furfuraldehyde; Furoil; Pyromucic Aldehyde; Furfurol; Furfuranecarboxylic Aldehyde; Artificial Oil of Ants. — $HC(HC) \cdot O \cdot C(CH) \cdot COH = 96.06$. — Us'y fr. bran & H_2SO_4 by dist'n; also fr. sugar & o. carbohydrates by dry dist'n. — Color. liq.; yellow to brown on expos. to air. — SOL.: 15 W.; v. eas. A., & E. — Sp. Gr.: 1.167 at 15° C. — BOIL.: 158°–161° C. — USES: *Techn.*, as solvent of nitrated cotton, cellulose acetate, & gums; manuf. varnishes, intermediates, artif. resins, etc.; as insecticide, antiseptic, & germicide; accelerating vulcanization. — CAUT.: Keep dark.

FURFURALDEHYDE—see Furfural

Furfuramide

$(C_5H_4O)_3N_2 = 268.19$. — Fr. furfural & NH_4OH . — Brownish cryst. — SOL.: Eas. A., E.; insol. W. — MELT.: 117° C.

FURFURANECARBOXYLIC ALDEHYDE—see Furfural

Furfurine

$C_{15}H_{12}N_2O_3 = 268.19$. — Fr. furfuramid & dil. KOH by boil. — Yellowish need. — SOL.: Eas. A., E.; sltly in W. — MELT.: 116° C.

Furfurine Nitrate

$C_{15}H_{12}N_2O_3 \cdot HNO_3 = 331.20$. — Brownish-yellow, v. bitter cryst. — SOL.: A.; sltly W.

FURFUROL, or FUROL—see Furfural

FUSEL OIL—see Alcohol Amylic

G**Gabbett's Stain—For Bacteria**

Diss. 2 Gm. methylene blue in a mixt of 35 Gm. conc. H_2SO_4 & 65 cc. W. — USES: As contrast stain f. tubercle bacilli previously stained w. Ziehl's stain.

Gadolinite—Mineral

OCCUR.: Norway; Sweden; U. S. (Texas, Arizona, Colo.). — COMPOS.: $(SiO_4Be[YtO])_2Fe$. — CRYST. SYST.: Monosym. — LUSTER: Vitr. to greasy. — COLOR: Black, greenish-black, brown.

—FRACT.: Conch. or splintery; brittle.—HARDN.: 6.5–7.—SP. GR.: 4.0–4.5.—USES: Source of the earths of the Yt Er group as well as the Be earths.

Galduol—Soluble in Alcohol

Alcohol-Soluble Extract Cod-liver Merck.—Brown, oil liq.; bitter, acrid taste.—ACTION: Alter.—DOSE: 0.3–1 cc. (5–15 M) in wines, elixirs, &c.—Represents abt 25 times its wt. of prime cod-liver oil w. reference to the alterative principles.

GIACOPHOSPHAL—see Guaiacol Phosphite

Galactose Merck

Lactoglucose.— $C_6H_{12}O_6 = 180.13$.—Fr. lactose by boil. w. dil. H_2SO_4 .—Wh. to yellowish powd.; dextrogyrate.—SOL.: W.; alm. insol. methyl A.—MELT.: 163° – 165° C.—USES: Diagnos'g hepatic function.—DOSE: 30 Gm. (1 oz.).

Galanga—N.F. V; B.P.C.

Galangal; Colic Root; East-India Root; Chinese Ginger.—Dried rhizome of *Alpinia officinarum*, Hance, Zingiberaceæ.—HABIT.: China.—CONSTIT.: Volat. oil; acrid resin; kaempferid; galangin; alpinin (?); dioxyflavanol; galangol.—ACTION: Aromat.; Stomachic.—USES: As of ginger.—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver. dose 1 Gm. (15 grn.).—Ether. extr. 0.06–0.2 Gm. (1–3 grn.).

GALANGAL—see Galanga

Galbanum—B.P.C.

Gum-resin obt. fr. *Ferula galbaniflua*, Boissier & Buhse, & o. spec. of F., Umbelliferae.—HABIT.: Persia.—CONSTIT.: Volat. oil (5%–10%); gum (20%); resin (abt 60%).—ACTION: Stim.; Antirheumat.; Emmen.; Antispasm.; Rubefacient & Resolvent (employed chiefly in plasters).—DOSE: 0.3–1 Gm. (5–15 grn.) in pill, emuls., or tinct.

Galega—N.F. V

Goat's Rue.—Dried flowering herb of *Galega officinalis*, L., Leguminosæ.—HABIT.: Mediterranean region to Central Europe.—CONSTIT.: Bitter principle; tannin.—ACTION: Galactagogue; Vermif.; Diuret.—USES: Scanty milk secretion; does not reduce quality of milk.—DOSES: *Herb*: 0.6–6 Gm. (10–90 grn.); aver. dose 4 Gm. (60 grn.).—*Aqu. extr.*, 0.5–2 Gm. (8–30 grn.).—*Fl'dextr.*, 0.6–6 cc. (10–90 M) in sweet. W. as galact.

Galenite—Mineral

Lead Glance.—OCCUR.: Widely distrib.—COMPOS.: PbS .—CRYST. SYST.: Reg.—LUSTER: Metal.—COLOR: Lead-gray; tarnishes to black.—STREAK: Lead-gray.—CLEAV.: Perfect cubic.—HARDN.: 2.5–2.75.—SP. GR.: 7.4–7.6.—USES: Most important source of lead; used also in manuf. of H_2SO_4 ; as crystals f. radio receiving sets.

GALIPOT—see Turpentine, French

Galium

Cleavers; Goose-grass; Catch-weed; Bedstraw; Cleaverwort.—Whole plant, Galium Aparine, L., Rubiaceæ.—HABIT.: Europe; natur. in U. S.—CONSTIT.: Rubichloric acid; galitannic acid; citric acid.—ACTION: Diuret. (in dropsy); Refriger.; Antiscorbut.; Antipyret.—USES: Skin dis., & dis. of genito-urin. tract.—DOSES: 2–4 Gm. (30–60 grn.) in powd.—*Fl'dextr.*, 2–4 cc. (30–60 M).

GALLA—see Nutgall

Gallacetophenone

Alizarin Yellow C 100%; Trioxycetophenone; Methylketonetrioxylbenzene.— $C_6H_2(OH)_3.CO.CH_3 = 168.10$.—Fr. pyrogallol, acet. acid, & $ZnCl_2$ by heat.—Brownish-gray powd.—SOL.: A., E., hot W., & solut. sod. acetate; v. sltly B.—MELT.: 173° C.—ACTION: Antisept.—USES: In skin dis. in 10% solut., or 10% oint. w. lanum, partic. in psoriasis.

Gallal

Aluminum Gallate.— $Al_4(C_7H_2O_5)_3 + 4H_2O = 678.22$ (?).—SOL.: NH_4OH .—ACTION: Astring.—USES: Where tannin is indicated.

GALLAMID—see Acid Gallamic

GALLANILIDE—see Gallanol

Gallanol

Gallic Acid Anilide; Gallanilide; Gallinol.— $C_6H_5.NH.CO.C_6H_2(OH)_3 + 2H_2O = 281.19$.—Fr. gallic acid & aniline by boil.—Colorl. cryst. or powd.—SOL.: A., E.; boil. W.; sltly cold W.; insol. B., C.—MELT.: 207° C.—ACTION: Antiseptic; Dermic.—USES: Psoriasis, ecz., & o. skin dis. inst. of chrysophanic acid or pyrogallol; stated to be free fr. unpleas. effects.—APPL.: In acute or chronic ecz. in 5%–20% oint.; in psoria. 20% solut. in chloroform or traumaticin; f. moist ecz., 25% dust. powd. w. talc.; f. favus, prurigo, & trichophytosis, 20% solut. in A. w. a little ammonia.

Gallein

Pyrogallolphthalein.— $C_{20}H_{10}O_7 = 362.18$.—Fr. phthalic anhydride & gallic acid by heat.—Brown powd., or greenish lustrous cryst.—SOL.: A.; alm. insol. W.—USES: In solut. (0.5 Gm., 100 cc. 50% A.; of this solut. 2–3 drops are added to abt 100 cc. solut. to be titrated) as a sensitive indic. (neutral or acid = yellowish-brown; alkalis = rose-red) f. mineral & organic acids, alkali hydroxides, NH_3 , & alkaloids, but useless f. carbonates; v. sensitive to alkalis; determ. phosphates in urine (monophosphates give with it a yellow, dibasic a red, & tribasic a violet, color).

GALLIC ACID ANILIDE—see Gallanol

Gallicin

Methyl Gallate. — $C_6H_2(OH)_3.CO.OCH_3 = 184.10$.—Fr. methyl A., HCl gas (or conc. H_2SO_4), & gallic or tannic acid by heat.—Wh. to yellowish-wh. cryst.—SOL.: Hot W., ethyl & methyl A., E.—MELT.: 202° C.—ACTION: Anticatharrhal; Antisept.—USES: *Extern.*, catarrh of

conjunctiva, acute & chron. follicular catarrh, superficial keratitis, phlyctenular inflam.—APPL.: Powd., by camel's-hair brush.

GALLINOL—see Gallanol

Gallium

Ga = 70.10; discovered by Lecoq de Boisbaudran, in 1875.—Brittle, gray, hard, tough, sltly malleable; greenish-blue reflect.; silver-white when melted.—SP. GR.: 6.0.—MELT.: 30° C.

Gallobromol

Dibromgallic, or Dibromtrioxybenzoic, Acid.— $C_6Br_2(OH)_3COOH = 327.91$.—Fr. gallic acid in $CHCl_3$ by Br—Light-brown powd.—SOL.: A., E., W.—ACTION: Sed., Hypn., & Antispasm.; Antisep.; Astring.—USES: *Intern.*, inst. of KBr in neurasthenia, colics, etc.—*Extern.*, cystitis, gonorr., gleet, eczema, & o. skin dis.—DOSE: 0.6–2 Gm. (10–30 grn.); as hypn., 3 Gm. (45 grn.).—APPL.: In 1%–4% solut. as urethral inj. or wash f. bladder, & gonorrh.; also as poultice, powder, or paste.

Gallogen

Anhydrous Ellagic Acid; Benzoaric Acid.— $(OH)_2C_6H:COO:C_6(OH)_2COOH = 302.12$.—Fr. divi-divi, the pods of *Cæsalpina coriaria*.—Yellowish, odorl., tastel. powd.—SOL.: Alkalies; insol. acid & neutral media.—ACTION: In test. Astring.—USES: Dysent., cholera infant., diar., &c.—DOSES: Adults, 0.6–1 Gm. (10–15 grn.); childr., 0.3–0.5 Gm. (5–8 grn.).

GALLS—see Nutgall

GALMEI—see Calamine

Galy

Tetraoxydiphosphoaminodiarsenobenzene.—Yellow powd.; 35.3% As.—SOL.: Solut. of alkali carbonates; insol. W., A., E.—ACTION & USES: As of arsphenamine.—DOSE: 0.01 Gm. ($\frac{1}{2}$ grn.) diss. in 3 cc. (45 M) dil. solut. sod. carbonate.

Gambir—U.S.P. X; B.P.

Catechu (B.P.); Pale Catechu; Gambir Catechu; Terra Japonica.—Dried aqu. extract prep'd fr. lvs & twigs of *Ouroputia* (*Uncaria*) Gambier (Hunter), Baillon, Rubiaceæ.—HABIT.: Southern Asia.—SOL.: Not less than 70% in W., & not less than 60% in A.—CONSTIT.: Catechin (7%–33%); catechutannic acid (22%–50%); quercetin; gambircatechu red; gum; fixed oil; wax.—ACTION: Strong Astring.; Mild Tonic.—USES: *Medic.*, in diarrh., relax. uvula, spongy gums, pharyngitis, chron. gonorr., leucorrh., &c.—*Techn.*, tanning; dyeing fabrics brown & black.—DOSE: 0.3–2 Gm. (5–30 grn.) in powd., tinct., pill, &c.; aver. dose 1 Gm. (15 grn.).—Comp. powd. (catechu, kino, krameria root, cinnamon, & nutmeg), 0.6–2.6 Gm. (10–40 grn.).—Tr. (1:5), 2–4 cc. (30–60 M).—INCOMP.: Iron comp'ds, gelatin, lime-water, $HgCl_2$, $ZnSO_4$, alkalies.

GAMBIR CATECHU—see Gambir

Gamboge—U.S.P. X; B.P.C.

Cambogia.—Gum-resin fr. *Garcinia Hanburyi*, Hooker fil., Guttiferae.—HABIT.: East Indies.—CONSTIT.: Resin (70%–80%, B.P.C.); cambogic acid; gum (15%–25%).—USES: Drast. Hydragogue Cathart.; Diuret.—DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) sev'l t.p.d., in pills; aver. dose 0.12 Gm. (2 grn.).—MAX. D.: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.—ANTID.: Oil; albumin; opium; inj. camphorated oil.

do. Indian—B.P.C.

Gum-resin fr. *Garcinia Morella*, Desrouss., Guttiferae.—HABIT.: India.—USES & DOSES: As of gamboge.

GAMMADINITROPHENOL—see γ -Dinitrophenol

GARANTOSE—see Saccharin

Gardan

$C_{11}H_{11}N_2O.N(CH_3)_2.C_{11}H_{11}N_2ONCH_3.CH_2SO_3-Na + H_2O = 582.41$.—Comp'd of 60.3% novalgin & 39.7% pyramidon.—Colorl., odorl., cryst. powd.—SOL.: Abt 6 W., diffic. A.—ACTION: Antirheumat.; Antineuralg.; Antipyret.—DOSE: 0.25–0.5 Gm. (4–8 grn.) 3–4 t.p.d.

GARDEN BALM—see Melissa

GARDEN CHAMOMILE—see Chamomile

GARDEN LAVENDER—see Lavender

GARDEN ROSEMARY—see Rosemary

GARGET—see Phytolacca

Garlic—N.F. V

Allium.—Fresh bulb of *Allium Sativum*, L., Liliaceæ (Allioideæ).—HABIT.: Central Asia; Southern Europe.—CONSTIT.: Volat. & fatty oils; mucilage; albumin.—ACTION: Diaphor.; Diuret.; Anthelm.; Rubefac.; Expector.—USES: Bronchitis, pneum., & infant. convuls. Also in cookery.—DOSE: 1.3–4 Gm. (20–60 grn.), us'y as syrup of garlic. Aver. dose 2 Gm. (30 grn.).—Fl'dextr., 1.3–4 cc. (20–60 M).

Garnierite—Mineral

Noumeite; Numeait.—OCCUR.: Near Noumea in New Caledonia.—COMPOS.: Nickel magnesium hydrosilicate of varying compos.—LUSTER: Dull.—COLOR: Bright apple-green, opaque to transluc.—STREAK: Greenish-wh.—FRACT.: Conch. to uneven. In part unctuous, somet. adheres to tongue.—HARDN.: 2–4.—SP. GR.: 2.3–2.8.—USES: Important nickel ore.

Gaultheria

Wintergreen; Checkerberry; Deerberry; Boxberry; Teaberry.—Lvs of *Gaultheria procumbens*, L. Ericaceæ.—HABIT.: Canada & north-eastern U. S.—CONSTIT.: Volat. oil (0.5%; methyl salicylate); arbutin; ericolin; urson; resins; tannin.—ACTION: Antipyr.; Antirheum.; Astring.—USES: Rheum., diar., gout, & febrile condit.—DOSE: Fl'dextr. 2–4 cc. (30–60 M).

Gelanthum

Accord. to Unna an ideal water-soluble vehicle f. dermics. Forms a smooth, homogeneous

covering without tendency to stickiness; does not stain the skin or linen; readily takes up 50% ichthylol, 40% salicylic acid, resorcinol, or pyrogallol; 5% carbolic acid, & 1% HgCl_2 ; keeps insoluble drugs well suspended.—N.B.: The preparation is prone to spoil.

Gelatin—U.S.P. X; B.P.

Glutin.—Purif. prod. obt. by boil'g skin, tendons, ligaments, bones, etc. w. W.—Amorph., brittle, transp., tastel. sheets or flakes.—SOL.: Hot W., G., & acetic acid; only swells up in & absorbs 5–10 times its wt of cold W.; insol. A., B., C., E., CS_2 , oils.—USES: *Subcut.*, in 1%–2% sterilized solut. as efficient hemostat. (see Gelatin, Sterilized Solut.); also in 5%–10% aqu. solut. as hemostat. in gastric & intest. hemorrhages, uterine hemorrhage, intrauterine inject.; on tampons w. gelatin gauze; in metrorrhagia, brush appl. of 5%–15% solut.; also *extern.* as wash in melena neonatorum. The gelat. solut. must be sterilized before use, & warmed up to 37°–38° C.—For hypod. use it is best to employ the specially sterilized solut. (*q.v.*) f. injection.—Also in bacteriology f. prep. cultures; as test f. phosphoric acid (Arragon); manuf. light filters f. Hg lamps, confectionery, jellies, ice-cream, rubber substitutes, adhesives, cements, lithographic & printing inks, plastic comp'ds, printing rollers, photogr. plates & films, matches; clarifying agent; in hectographic masses; sizing paper & textiles; manuf. artif. silk.—INCOMP.: Tannin, formaldehyde.

do. —Sterilized Solution, for Injection

10% solut. gelat. intended specially f. subcut. & intraven. inject., & prep'd fr. fresh calves' feet under special, aseptic precautions & v. carefully sterilized.—ACTION: Efficient hemostatic.—USES: *Subcut.*, to relieve pains of pleurisy, articular pains, progressive paralysis, & in aneurismal pains; hemorrhage of typhoid; variola hemorrhagica; cholemic hemorrhage; in aneurism.—*Rectally*, in dysentery & enterocolitis.—*Intern.*, intest. hemorrhage.—*Loc.*, in epistaxis, metrorrhagia; uterine hemorrhage; also to check bleeding fr. leech bites, & fr. surface wounds of hemophilic subjects.—DOSE: In epistaxis, 20–30 cc. (5–8 fl. dr.) solut. cont. 2% gelatin & warmed to blood heat, injected into the nasal cavity; typhoid hemorrhage, 20 cc. (5 fl. dr.) 10% solut.; in aneurism, f. checking cholemic hemorrhages, in hemorrhagic variola, hemoptysis, hemophilia, gastric & intest. hemorrhage, menstrual hemorrhage, etc., 40 cc. (10 fl. dr.) repeated if neces.; in pleuritic, aneurismal, & articular pains, & progressive paralysis, 25 cc. (6¼ fl. dr.) 1% solut. subcut.; & in melena neonatorum, 10–20 cc. (2½–5 fl. dr.) of 20% solut. subcut. in gluteal region.

GELATIN; BENGAL, CEYLON, CHINESE, OR JAPAN—see Agar

GELATIN-DIBROMOTANNATE—see Bromocoll

GELATOSE-SILVER—see Albargin

GELBIN—see Barium Chromate

Gelobarin

A cream of Barium Sulphate specially prepared for radiologic examinations; free from soluble barium salts and phosphate. Contains 40% BaSO_4 , the balance being water.

Gelsemin Merck—Resinoid

Fr. rhizome & roots *Gelsemium sempervirens* (L.), Pers.—Yellowish-brown powd.—SOL.: A.—ACTION: Antipyr.; Analg.; Anod.; Cardiac Depress.; Hypn.—USES: Fevers, dysent., rheum., dysmenor., delir. trem., neural., epilepsy, toothache, chorea, &c.—DOSE: 0.008–0.06 Gm. (⅓–1 grn.) sev'l t.p.d.

"GELSEMINE" & SALTS—see under Gelseminine

Gelseminine Merck—Alkaloid

"Gelsemine."— $\text{C}_{22}\text{H}_{26}\text{N}_2\text{O}_3 = 366.33$ (Spiegel); $\text{C}_{20}\text{H}_{22}\text{N}_2\text{O}_2 = 322.29$ (Moore).—Cryst. alkaloid fr. root & rhizome of *Gelsemium sempervirens* (L.), Pers.—Wh., cryst.—SOL.: A., B., C., E., acetone; insol. W.—MELT.: Abt 160° C., after previous softening; (178° C. Moore).—ACTION: Antineural.; Antispasm.—USES: Neural., rheum., dysmenor., &c.; also antid. to strychnine.—DOSE: 0.0005–0.002 Gm. (⅓/120 grn.).—MAX. D.: 0.002 Gm. (⅓/30 grn.) single; 0.01 Gm. (⅓ grn.) p.d.—ANTID.: Emetics early, atropine, strophanthin, artif'l respir., extern. stimulation.—CAUT.: Poison! Do not confuse with Gelsemin Resinoid.

Gelseminine Hydrochloride Merck—Cryst.

"Gelsemine" Hydrochloride.— $\text{C}_{20}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{HCl} = 358.76$; or $\text{C}_{22}\text{H}_{26}\text{N}_2\text{O}_3 \cdot \text{HCl} = 402.80$.—Wh., cryst. powd.—SOL.: W.; sltly in A.—MELT.: Abt 300° C.—USES: As of gelseminine.—DOSE: 0.001–0.003 Gm. (⅓/60–⅓/20 grn.).

Gelsemium—N.F. V; B.P.

Yellow Jasmine or Jessamine; Wild Woodbine.—Dried rhizome & roots of *Gelsemium sempervirens* (L.), Persoon., Loganiaceae.—HABIT.: Southern U. S.—CONSTIT.: Gelseminine (gelsemine); gelsemoidine; scopoletin; gelsemic (gelseminic) acid; volat. oil; resin.—ACTION: Antineural.; Antiperiod.; Sedative; Mydriatic; Antispasm.—USES: Neural., coryza, dysuria, hyst., dysmenor., whoop-cough, asthma, malar. & yellow fevers, pneum., pleurisy, dysent., toothache, delir. tremens, rheumat., &c.—DOSE: 0.015–0.12 Gm. (⅓/4–2 grn.); aver. dose 0.03 Gm. (⅓ grn.).—Alcoh. extr., 0.008–0.03 Gm. (⅓/8–⅓ grn.).—Fl'dextr., 0.06–0.2 cc. (1–3 M).—Tr. (1:10) 0.12–1 cc. (2–15 M).—ANTID.: Cardiac & diffusible stimul'ts; tannin; evacuants; atropine; extern. heat & friction; morphine; mustard bath; artif. respir.; electricity; emetics; stomach siphon.

GENESERINE—see Eseridine

GENESERINE TARTRATE—see Eseridine Tartrate

Gentian—U.S.P. X; B.P.; Fr. Cod.

Yellow (or Pale) Gentian; Bitter Root.—Dried rhizome & roots of *Gentiana lutea*, L., Gentianaceae.—HABIT.: Central & southern Europe.—CONSTIT.: Gentiin; gentiamarin; gentisin (gentianin; gentisic acid); gentiopicrin; gentianose (a sugar); pectin.—ACTION: Bitter Tonic; Laxat.; Antiperiod.—USES: Dyspep., anorex.,

amenor., atonic gout, &c.—*Techn.*, in manuf. of liqueurs, & as pill excip.—Doses: 0.3–2 Gm. (5–30 grn.); aver. dose 1 Gm. (15 grn.).—Aq. extr., 0.12–0.36 Gm. (2–6 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).—Comp. Tr. (1:10), 2–8 cc. (30–120 M).—Tr., 2–8 cc. (30–120 M).

Gentian Blue B B

Hydrochloride, sulphate, or acetate of triphenylrosaniline & triphenylpararosaniline.—Grayish-green to bluish-violet powd.—SOL.: A.; insol. W.—USES: Adapted f. coloring paper, spirit lacquers, &c.

Gentian Violet—Medicinal

A mixt. of pentamethyl- & hexamethyl-parosaniline chlorides.—Dark green powd., or greenish glistening pieces w. metallic luster.—SOL.: 10 W.; A., C.; insol. E.—ACTION: Bactericide; Antisept.—USES: Affections of the pleural cavity & joints (partic. empyema & arthritis), caused by staphylococci, B. pyocyaneus, & B. diphtheriae; also intraven. in staphylococcus septicemia, chron. cystitis (fr. staphylococci), osteomyelitis.—DOSE: 0.005 Gm. ($\frac{1}{12}$ grn.) per kilo of body wt intraven.—APPLIC.: In solut. 1:500–1000; f. instillation 1:10000.

do. B

Commercial grade of methyl violet.—Green powd.—SOL.: As of methyl violet.—USES: Microsc. & bacteriol. f. staining bacteria (Weigert's, Simon's, &c. solut's), & partic. f. nuclei, alone or combined w. other dyes.

do. BBB

Paris, or Direct, Violet; Dahlia.—Hydrochlorides of tetra-, penta-, & hexa-methylparosanilines.—By oxidat'n of dimethylaniline w. CuCl_2 .—Green powd.; metal. luster.—SOL.: A., W., amyl A.—USES: Dye silk & wool direct, & cotton mordanted w. tannin & tartar emetic. Also in Weigert's & Simon's stains f. bacteria.

do. BR

Commercial grade of methyl violet.—Green powd.—SOL.: As of methyl violet (*q.v.*).

"GENTIANIN"—see Gentisin

Gentianin

Crude Gentianic Acid; Crude Gentisin.—Crude, bitter prin. fr. root *Gentiana lutea*, L.—Dark-brown extract.—SOL.: A.—ACTION: Tonic.—USES: Dyspep., hysteria, debil., &c.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.) single; 0.3–0.6 Gm. (5–10 grn.) p. day.

Gentisin

Gentianic Acid; "Gentianin."— $\text{C}_{13}\text{H}_{25}\text{O}_2(\text{OH})_2\text{OCH}_3 = 258.15$.—Color. matter fr. root *Gentiana lutea*, L.—Pale-yellow cryst. powd.—SOL.: Hot A., eas. alkalies; alm. insol. E., W.—SUBL.: At 300° C. w. consid. decomp.—MELT.: 267° C.

GENTISIN, CRUDE—see Gentianin

GERAGHTY-ROWNTREE'S TEST FOR RENAL FUNCTION = Phenolsulphonphthalein (*q.v.*).

GERANIAL, or GERANIALDEHYDE—see Citral

Geraniin

Concentration fr. rhizome *Geranium maculatum*, L.—Dark-brown powd.—SOL.: A.—ACTION: Astring.—USES: Diar., dysent., & cholera inf.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Geraniol—B.P.C.

$\text{C}_{10}\text{H}_{18}\text{O} = 154.19$.—An olefinic terpene alcohol constitut'g the chief part of oil of rose & palmarosa oil; isomeric w. linalool; also found in many other oils (citronella, lemon-grass, rose-geranium, etc.).—Colorl., oily liq.; sweet rose odor.—SOL.: v. eas. A., E.; insol. W.—SP. GR.: 0.880–0.883 at 15.5° C.—BOIL.: 230° C.—USES: Perfumery.

Geranium—N.F. V; B.P.C.

Cranesbill; Storksbill; Alum Root.—Dried rhizome of *Geranium maculatum*, L., Geraniaceae.—HABIT.: Canada & eastern U. S., south to Georgia.—CONSTIT.: Tannin (10%–28%, B.P. C.); gallic acid; red color. matter; resin; sugar; pectin.—ACTION: Astring.; Stypt.—USES: Partic. useful in renal & intest. hemorrhages; cholera infantum, diar., prolapsus, &c.—*Extern.*, in epistax., ulcers, hemorrhages, cracked nipples, gleet, leucor., & relaxed muc. membr.—*Techn.*, in tanning.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose 1 Gm. (15 grn.).—Extr. 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 1–2 cc. (15–30 M).—Tr., 2–4 cc. (30–60 M).

GERATACÁCA—see Manaca

GERMAN CHAMOMILES—see Matricaria

GERMAN ELDER—see Sambucus

Germander—Fr. Cod.

Water Germander; English Treacle; Wood Garlic.—Herb of *Teucrium Scordium*, L., Labiate.—HABIT.: Europe.—Fresh herb has a garlicky odor, & a bitter, sharp taste.—CONSTIT.: Scordein; volat. oil; tannin.—ACTION: Diaph.; Tonic; Anthelmint.; Antifermentative; Antisyphil.—DOSE: 1–2 Gm. (15–30 grn.).

GERMANIC ACID, or OXIDE—see Germanium Oxide

Germanin

Bayer-205.—Ureid of neutral sodium *m*-aminobenzoyl-*m*-amino-*p*-methylbenzoyl-1-naphthylamine-4.6.8.trisulphonate.—Wh. powd.—SOL.: Eas. W. & solut. NaCl.—ACTION: Trypanocide.—USES: In affections due to various trypanosoma (Nagana, Dourine, Congo).—DOSE: 0.5 Gm. ($\frac{7}{12}$ grn.) increased to 1 Gm. (15 grn.) in 5%–10% solut. by intraven., subcutan., or intraperitoneal inj. Solut's are sterilizable by heat without decomp'n.

Germanium

Ge = 72.50; discovered by Clem. Winkler in 1886 in argyrodite.—Grayish-wh., lustr., v. brittle metal; also as dark-gray powd.—SP. GR.: 5.47 at 20° C.—MELT.: Abt 58° C.

Germanium Oxide

Germanium Dioxide; "Germanic Acid" or Oxide.— $\text{GeO}_2 = 104.50$.—Wh. powd.—SOL.: Alkalies; sltly W. & acids.—USES: Pernicious

anemia.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) daily, ev. 2–3 days, until 1 Gm. (15 grn.) given.—*Subcut.*, 0.012–0.02 Gm. ($\frac{1}{5}$ – $\frac{1}{3}$ grn.).

Germanium & Potassium Fluoride

K₂GeF₆ = 264.70.—Wh. cryst.—SOL.: Quite freely in boil. W.; sltly cold W.; insol. A.

GEROXIDE = GERMANIUM OXIDE

Gerrard's Solution—Test for Glucose

To Fehling's solut. add a 50% KCN solut. until just colorless, then mix w. an eq. vol. unchanged Fehling's solut.—On boil. the solut. w. a liq. (e.g., urine) cont'g glucose the blue liq. is decolorized without pptn of cuprous oxide.

Gersdorffite—Mineral

Arsenical Nickel; Nickel Glance.—OCCUR.: Loos, Sweden; Harz, Germany; Schlading, Styria, etc.—COMPOS.: NiFeAsS.—CRYST. Syst.: Regular pentag. hemihedr.—COLOR: Silver-wh. to steel gray.—HARDN.: 5.5.—SP. GR.: 5.6–6.2.—USES: Source of nickel.

Gibbe's Stain—For Double-staining Bacteria

(1): A solut. of 3 cc. aniline, 2 Gm. fuchsine, & 1 Gm. methylene blue in 15 cc. A. & 15 cc. W.—(2): 1.2 Gm. magenta, 1 Gm. methylene blue, 15 cc. A., 3 cc., aniline, & 15 cc. W.

Giemsa's Solution for Romanowsky Stain

Solut. of azur II-eosine 3 Gm., azur II 0.8 Gm., G. (sp. gr. 1.23, Reag.) 250 Gm., & methyl A. (Reag.) 250 Gm. Dry the azur-eosine & azur II over H₂SO₄ in the desiccator, reduce to fine powd., pass through a fine silk sieve, diss. in the G. by shak'g at 60° C., add the methyl A. (w. shaking) first heated to 60° C., then let stand 24 hours at ord. temp., & filter.

Giemsa's Stain—For Microscopic Sections

(1): A mixt. of 10 cc. 0.005% aqu. solut. eosine (potassium) w. 1 cc. 0.008% aqu. solut. azur II (= mixt. eq. pts methylene blue & methylene-azur).—(2): 0.3 Gm. azur II-eosine, 0.8 Gm. azur II, 250 cc. G., & 250 cc. methyl alcoh. (U.S.P. IX).

Gillenia

Concentration fr. root *Gillenia trifoliata*, Moench (Indian Physic).—Brown powd.—SOL.: A.—ACTION: Emetic; Cath.; Tonic; Expect.—USES: Inst. of ipecac.—DOSE: 0.25–0.36 Gm. (4–6 grn.).

Ginger—U.S.P. X; B.P.; Fr. Cod.

Dried rhizome of *Zingiber officinale*, Roscoe, Zingiberaceæ.—HABIT.: Southern Asia; West Indies; Africa; cult. in all tropical countries.—CONSTIT.: Volat. oil (0.25%–3%, B.P.C.); acrid resin; gingerol.—ACTION: Rubefac.; Stomachic; Digestive (in flatulence & digestive troubles); Carminat.; Stim.; Sternut.; Sialag.; Corrigent.—USES: As an anodyne in colic, rheumat., neuralgia, toothache, &c.—*Techn.*, in manuf. ginger beer, in cookery, &c.—DOSES: 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.5 Gm. (8 grn.).—Fl'dextr., 0.3–1.3 cc. (5–20 M).—Tr. (1:5) 1–4 cc. (15–60 M).

GINGER, CHINESE—see *Galanga*

GINGER, INDIAN, OR WILD—see *Asarum*

Ginseng

Panax; American Ginseng.—Root of *Panax quinquefolium*, L. Araliaceæ.—HABIT.: North America.—CONSTIT.: Volat. oil; resin; panacin; panaciquinon; sugar; mucilage.—ACTION: Stim.; Tonic; Nervine; Aphrodisiac.—USES: By the Chinese as a panacea f. every variety of disease.—DOSE: 2–8 Gm. (30–120 grn.).

GIRL'S MERCURY—see *Mercurialis*

GLASS, SOLUBLE—see Potassium, or Sodium, Silicate

Glass-Wool Merck

Wh., silky threads fr. readily fusible glass.—USES: For strain'g strong acids & alkalies.

GLAUBER'S SALT—see Sodium Sulphate

Globularetin

C₆H₈O = 130.09 (Heckel); C₂₄H₂₈O₈ = 412.34 (Walz).—Brownish-yellow powd.—ACTION: Diuret. & Purg.—USES: Increase renal efficiency; intest. stasis.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.); as drastic purg. 0.25–0.4 Gm. (4–7 grn.).

Globularin

C₁₅H₂₀O₈ = 328.24 (Heckel); C₃₀H₄₄O₁₄ = 628.50 (Walz).—Glucoside fr. lvs *Globularia alypum.*, L., & *G. vulgaris*, L.—Brownish-yellow powd.—SOL.: A., C., E.—ACTION: Like that of caffeine on the heart & nervous system; lessens urinary secretion.—USES: 0.012 Gm. ($\frac{1}{2}$ grn.) globularin, w. 0.018 Gm. ($\frac{3}{10}$ grn.) globularetin, in alcoh. solut., is given twice daily in rheumat., gout, typhoid, & uremia of Bright's dis. The French "Teinture prasoïde" consists of globularin 0.5 Gm., globularetin 0.7 Gm., 60% alcohol 20 Gm.; dose, 8–20 drops twice daily.

Globulin

Proteid fr. serum.—Yellowish powd.—SOL.: Alkalies; insol. W.

GLOBULINS, ANTIDIPHTHERIC—see Antitoxin, Diphtheria

GLOBULINS, ANTITETANIC—see Antitoxin, Tetanus

GLONOLIN—see Spirit Glyceryl Trinitrate

Glucinum

Beryllium.—Gl = 9.10.—Gray powd., or lustrous, cryst. particles; color, luster, & hardness of steel.—SOL.: In dil. acids & KOH solut.—SP. GR.: 2.1 at 15° C.—USES: In manuf. glucinum copper alloys, which, because of their resonance, are used in the making of piano wire; special electrical & o. scientific instruments & apparatus; synthetic precious stones.

Glucinum Carbonate—Basic

Beryllium Carbonate.—(GLO)₅.CO₂.5H₂O = 259.59.(?) ; compos'n variable.—Wh. powd.—SOL.: Acids; insol. W.

Glucinum Chloride—Anhydrous, Sublimed

Beryllium Chloride.— $\text{GlCl}_2 = 80.02$.—Wh. to faintly yellowish, very deliquescent, cryst.—SOL.: v. eas. W.; also in A., B., E., CS_2 , & pyridine.

do. —Syrupy, 99%

$\text{GlCl}_2 + 4\text{H}_2\text{O} = 152.08$.—Colorl. or sltly yellow, syrupy liq.; at times deposits colorl. cryst. (GlCl_2) + $4\text{H}_2\text{O}$) at low temp.—SOL.: W., A.

Glucinum Hydroxide

Beryllium Hydrate.— $\text{Gl(OH)}_2 = 43.12$.—Wh. amorph. powd.—SOL.: Alkalies, acids; insol. W.

Glucinum Nitrate

Beryllium Nitrate.— $\text{Gl(NO}_3)_2 + 3\text{H}_2\text{O} = 187.16$.—Wh. to sltly yellowish, deliq. mass.—SOL.: v. eas. W., A.—CAUT.: Keep well stoppered.

Glucinum Oxide—Anhydrous

Beryllium Oxide.— $\text{GlO} = 25.10$.—Wh. amorph. powd.—SOL.: Acids; alkalies; when strongly ignited only part. sol.; insol. W.

Glucinum Sulphate Merck

Beryllium Sulphate.— $\text{GlSO}_4 + 4\text{H}_2\text{O} = 177.22$.—Colorl. cryst.—SOL.: Abt 1 cold W., more sol. hot W.; insol. A.

Glucinum & Potassium Fluoride

$\text{GlF}_2(\text{KF})_2 = 163.30$.—Wh. cryst. masses.—SOL.: 50 W. at 20°C ; 19 boil. W.

Glucinum & Sodium Fluoride

$\text{GlF}_2(\text{NaF})_2 = 131.10$.—Wh. cryst. mass.—SOL.: Abt 70 cold, & abt 33 boil'g. W.—USES: Source of pure beryllium metal.

GLUCOCHLORAL—see Chloralose**Glucose—U.S.P. X—Liquid**

Fr. starch by incomplete hydrolysis.—Consists chiefly of dextrose (*d*-glucose, $\text{C}_6\text{H}_{12}\text{O}_6$), maltose, dextrins, & water.—Colorl. or yellowish, thick, syrupy liq.; sweet taste.—SOL.: Eas. W., G.; sltly A.—USES: As nutrient, orally or rectally; *not* adapted for intraven. or subcutan. use.—*Techn.*, manuf. wine (in Gall's method of improving acid wines, & in Petiot's process of making sugar-water wines); as surrogate for malt & honey (in baking); manuf. caramel; prepar. tobacco & mustard; confectionery, &c.

GLUCOSE, SOLID—see Dextrose**GLUE, ANIMAL, or BONE—see Glutin (Animal)****GLUSIDE, GLUSIDUM, or GLUSIMIDE—see Saccharin****Gluten**

Plant fibrin.—Albuminoid fr. grain.—Yellowish-gray powd.—SOL.: Alkalies.

GLUTEN, or GLUTEN-FIBRIN—see Fibrin, fr. Plants**GLUTIN—see Gelatin****Glutin, Animal—Technical**

Animal or Bone Glue.—Fr. decalcified bones of vertebrate animals.—Yellowish scales.—SOL.: Boil. W.; insol. A. & E.—USES: As adhesive inst. of ordinary glue.

GLUTOFORM—see Glutol**Glutol**

Glutoform; Formaldehyde-Gelatin Schleich.—Comp'd of formaldehyde & gelatin.—Wh., to yellowish, odorl. powd.—SOL.: Hot W. under pressure, & yielding a gelat. mass on cool.; insol. cold W.—USES: Antiseptic dressing in surgical treatment of open wounds, ulcers, burns, etc. The powd. is best simply applied undiluted to the sewn or torn wounds. The solution may be sterilized without decomposition.

GLYCERIDE BORIC ACID—see Boroglycerin**Glycerin Merck—Reagent—Sp. Gr. 1.25**

Glycerol.— $\text{C}_3\text{H}_8\text{O}_3 = 92.08$.—Clear, colorl. or alm. colorl., alm. odorl., syrupy, hygroscop. liq.—MISC.: W., A., but not w. B., C., E., or CS_2 .—10% aqu. solut. neutral to litmus.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.005%
Chloride (Cl)	0.000%
Sulphate (SO_3)	0.000%
Oxalic Acid ($\text{H}_2\text{C}_2\text{O}_4$)	0.000%
Calcium (Ca)	0.005%
Heavy Metals	0.000%
Arsenic (As)	0.0002%
Readily Carbonizable Matter..	None
Sugars	0.000%
Ammonium Compds (NH_3) ..	0.000%
Fatty Acid Esters (as Glyceryl Butyrate)	0.10%
Substcs Reduc. AgNO_3	None
Acrolein	None

USES: As general solvent; titrat'g H_3BO_3 ; constituent of reagent f. glucose (Criswell; Hager; Krüger; Löwe; Pavy; Purdy; Rossel; Senft; Wayne), testing catechu & extr. male fern; reagent f. Fe salts (Dunlop), albumin (Fuchs; Spiegel), alcohol, volat. oils & fusel oil (Hager), citric acid (Mean), phenol & creosote (Morse).

Glycerin Merck—U.S.P. X, C.P.

Glycerine; Glycerol; Propanetriol [1:2:3]; Glycerol, or Propenyl, Alcohol.—Cont. abt 96% ($\text{CH}_2\text{OH})_2\text{CHOH} = 92.08$.—Clear, colorl., syrupy liq.; sweet & warm taste; absorbs moisture fr. the air.—MISC.: W., A.; insol. B., C., E., petrol. B., CS_2 , fixed oils.—Sp. Gr.: Not below 1.249 at 25°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.008%
Chloride (Cl)	0.001%
Oxalic Acid ($\text{H}_2\text{C}_2\text{O}_4$)	0.000%
Sulphate (SO_3)	0.005%
Acrolein	None
Ammonium Comp'ds (NH_3) ..	0.003%
Arsenic (As)	0.0005%
Heavy Metals	0.000%
Readily Carboniz. Substcs.	None
Silver Reduc'g Substcs.	Trace
Fatty Acid Esters (as Glyceryl Butyrate)	0.10%

USES: *Chem.*, as of the Reagent, above.—*Medic., intern.*, inst. of sugar or syrup in

mixt., or f. diabetics; also in chron. pharyngeal catarrh, digestive disturb., renal & hepatic colics, etc.—*Extern.* emollient; & as laxat. in enema, also in supposit. ea. cont. 2 Gm. (30 grn.), in obstin. constip.; also inst. of kaolin paste in ecz., carbuncle, phlegmons, burns, etc.—*Techn.*, solvent f. various substances, manuf. of glycerolates, cosmetic prep's, perfumery, liqueurs, confectionery, blacking, tobacco, printing & copying inks, explosives, lubricants, elastic glues, lead oxide cements; keeping fabrics pliable, preserving, printing on cotton; manuf. artif. oil mustard, & formic acid (fr. oxalic acid); also in gas meters, printing rollers, hectographs, liquid soaps, & to prevent freezing of W. in automobiles, gas meters, & hydraulic jacks (a 10% solut. of the Sp. Gr. 1.25 freezes at 30° F., a 20% solut. at 27° F., & a 30% solut. at 21° F.).—*Dose*: 4–15 cc. (1–4 fl. dr.); aver. dose 4 cc. (1 fl. dr.) U.S.P.; in renal colic, 100 Gm. (2½ fl. oz.); in hepatic colic 20–30 Gm. (4–6 fl. dr.); in pernicious anemia, 15 cc. (4 fl. dr.) 3 t.p.d.; in impacted feces, dysentery, & scrofula, 20–50 cc. (5–12 fl. dr.); by inhalation (w. 5–10 W. or lime water) in laryngitis.

GLYCERIN BOROLYCERITE—see Boroglycerin, Syrupy

GLYCERIN DICHLORHYDRIN—see Dichlorhydrin

GLYCERIN MONOACETATE—see Acetin

GLYCERIN SALICYLATE—see Glycosal

GLYCERIN TRIBUTYRYL—see Butyrin

GLYCERITE BORIC ACID—see Boroglycerin

GLYCEROL—see Glycerin

GLYCEROL MONOSALICYLATE—see Glycosal

GLYCERYL BORATE—see Boroglycerin

GLYCERYL MARGARATE—see Intarvin

GLYCERYL TRISTEARATE—see Tristearin

GLYCIN—see Glycocoll

GLYCIN-ETHYLESTER HYDROCHLORIDE—see Ethyl Glycocolate Hydrochloride

Glycocoll Merck

Aminoacetic Acid; Glycin.— $\text{CH}_2(\text{NH}_2)\text{COOH}$ = 75.06.—By boil. gelatin or hippuric acid w. HCl; or fr. bromacetic acid & NH_3 .—Colorl., sweet, cryst.—*SOL.*: Eas. W.; v. sltly A.; insol. E.—*MELT.*: At 200°–220° C. bec. brown, then melts at abt 230° C. w. swelling & bec. dark purple.—*ACTION*: Diur.—*USES*: *Medic.*, nephritis, liver dis. w. oliguria, & cardiac & hepatic stasis.—*Techn.*, manuf. var. remedial agents (phenocoll, salocoll, etc.); inst. of caustic alkalies & their carbonates in photogr. developers.—*Dose*: 5 Gm. (75 grn.) diss. in 150 cc. (5 fl. oz.) W. p.d.

Glycocoll Hydrochloride

$\text{CH}_2(\text{NH}_2)\text{COOH.HCl}$ = 111.53.—*Wh.*, deliq. cryst.; astring. taste.—*SOL.*: W.; sltly in A.

GLYCOCOLL-COPPER—see Copper Amidoacetate

GLYCOCOLLPARAPHENETIDIN HYDROCHLORIDE—see Phenocoll Hydrochloride

Glycogen Merck

$(\text{C}_6\text{H}_{10}\text{O}_5)_n$.—*Constit.* of liver, the resting muscle, & of horse meat.—*Wh. powd.*—*SOL.*: W. w. opalescence; insol. A.; solut. dextrogyrate. Converted by dil. acids into dextrose.—*USES*: Glycosuria & albuminuria, cachexia, hyperchlorhydria, tubercul., typhoid, influenza, pneumon., etc.—*Dose*: In glycosuria & albuminuria, 1–2 Gm. (15–30 grn.) p.d.; in hyperchlorhydria, 0.2–0.5 Gm. (3–8 grn.) p.d.

Glycogenal

Substance allied to glycogen.—Yellowish powd.

—*SOL.*: W. w. opalescence; insol. A. & E.—*ACTION*: Tonic & Bactericide.—*USES*: Employed in combin. w. tuberculin inj. in tubercul.; also in inoperable carcinoma, typhoid, phthisis, puerperal fever, & diabetic coma; caries, scarlet fever, influenza, pneumonia, pericarditis, purulent ear discharge, gum-boils, migraine, hyperchlorhydria, & Basedow's dis.—*Doses*: *Intern.*, 0.3–0.5 Gm. (5–8 grn.), 2 t.p.d.; *subcut.*, 0.04 Gm. (½ grn.) in W.—As enema, a mixt. of glycogenal 2 Gm. (30 grn.), ammonium carbonate 0.5 Gm. (8 grn.) & W. 50 Gm. (13 fl. dr.); also in supposit. ea. cont. 0.3 Gm. (5 grn.).

GLYCOL—see Ethylene Glycol

GLYCOL CHLORHYDRIN—see Ethylene Chlorhydrin

GLYCOL-MONACETIN—see Ethylene Glycol Monoacetate

GLYCOLURIL—see Acetyleneurea

GLYCOPHENOL—see Saccharin

Glycosal

Glycerol Monosalicylate Merck; Glycerin Salicylate Merck; Monosalicylic acid Glycerin Ester Merck.— $\text{C}_6\text{H}_4\text{OH.COO.C}_3\text{H}_5(\text{OH})_2$ = 212.15.—*Wh.*, cryst. powd.—*SOL.*: 100 cold, eas. hot, W. & A.; sltly C., E.—*MELT.*: 76° C.—*ACTION*: Antisept., Antirheum.—*USES*: Acute & chron. rheum., lumbago, neuralg., sciatica, bronchitis, pleurisy; said to be free fr. by-effects of o. salicylates.—*Dose*: 0.5–2 Gm. (7½–30 grn.) single, 10–12 Gm. (2½–3 dr.) p. day; children, 0.25–0.5 Gm. (4–7½ grn.).—*APPL.*: 20% solut. in alcoh. or collodion in artic. rheumat. & serous gonitis.—Glycosal also eligible f. rectal admin.

GLYCOSALICYLIC ALDEHYDE—see Helicin

Glycosamine Hydrochloride

Chitosamine Hydrochloride.— $\text{C}_6\text{H}_{11}\text{O}_5\text{NH}_2\text{.HCl}$ = 215.61.—Decomp. prod. of chitin fr. lobster shells.—*Wh.*, cryst., powd.—*SOL.*: v. eas. W.; sltly A.

GLYCOSAMINE—see Saccharin

Glycotauro

Conc. ox-bile, freed fr. bile pigments, & standardized to cont. 50% of the natural mixt. of sod. glycocholate & sod. taurocholate; 1 Gm. (15 grn.) = approx. 15 cc. (4 fl. dr.) fresh ox-bile (N.N.R.).—Light-brown, semisolid mass; sltly bitter taste.—*SOL.*: Eas. W., A.—*Sp. Gr.*: Abt 1.22.—*Dose*: 0.3 Gm. (5 grn.).

GLYCYL ALCOHOL—see Glycerin

GLYCYLTRYPTOPHAN SOLUTION—see Ferment-diagnosticum

Glycyrrhiza—U.S.P. X; B.P.; Fr. Cod.

Licorice; Liquorice; Sweet Root.—Dried rhizome & roots of *Glycyrrhiza glabra* L., var. *typica*, Regel & Herder (Spanish Licorice), or of *G. glabra* L., var. *glandulifera*, Regel & Herder (Russian Licorice), or of o. spec. of *G. glabra* yielding a yellow & sweet wood. Leguminosæ.—HABIT.: Southern Europe to central Asia.—CONSTIT.: Glycyrrhizin (2%–7%, B.P.C.); asparagin (1.25%); glucose; sucrose; resin; glycyramarin.—ACTION: Demulc.; Expector.; Lax.; Slight Stim. Locally; Corrigent.—USES: Chiefly to cover unpleas. taste of bitter medicines.—DOSE: 1–4 Gm. (15–60 grn.) or more; aver. dose 2 Gm. (30 grn.).

Glycyrrhizin Ammoniated Merck

Ammon. salt of glycyrrhizic acid, $C_{44}H_{63}NO_{13}$, fr. licorice root.—Dark-brown, or brownish-red, odorl., sweet scales.—SOL.: A., & freely in W.; insol. E., & sltly sol. in strong A., B.P.C.—ACTION: Expector.; Demulc.—USES: *Intern.*, chiefly w. bitter or neut. medic., to cover taste; also as cough remedy.—*Techn.*, as foam producer in beverages.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.25 Gm. (4 grn.), U.S.P. IX.—INCOMP.: Acids, metallic salts.

GLYMOL—see Petrolatum, Liquid

Glyoxal-Sodium Bisulphite

$SO_3Na(OH):CH.CH:SO_3Na(OH) + H_2O = 284.18$.—Wh., hard crust.; faint odor of SO_2 .—SOL.: W.; insol. A.

GLYOXYLDIUREID—see Allantoin

GOA POWDER—see Araroba

GOA POWDER, PURIFIED—see Chrysarobin

Goadby's Solution

Solut. 0.2 Gm. $HgCl_2$, 120 Gm. NaCl, & 60 Gm. alum in W. to make 3000 cc.—USES: Preserv. lower forms of marine animals.

GOAT'S RUE—see Galega

GOAT'S THORN—see Tragacanth

Gold—Foil

Au = 197.20.—SOL.: Mixt. of HCl & HNO_3 .—MELT.: 1063° C.—SP. GR.: 19.32.—BOIL.: 2530° C.—USES: *Techn.*, jewelry, dentistry, manuf. gold-leaf, wire, alloys (coins), amalgams f. fire-gilding, gold bronze, & f. gilding.

do. —Precipitated

Fr. $AuCl_3$ by reduct.—Yellowish-brown powd.—USES: *Intern.*, uterine hemorrhage, scrofula, syph., gout, rheumat.—*Extern.*, by rubbing into tongue and gums; also as oint. (1%).—DOSE: 0.03 Gm. ($\frac{1}{2}$ grn.) grad. incr., 2 t.p.d.

GOLD BLOOM—see Calendula

GOLD BROMIDE—see Gold Monobromide & Tribromide; also Acid Bromauric

Gold Chloride Merck—Reagent

Acid Gold Chloride; Chlorauric Acid.— $AuCl_3HCl + 3H_2O = 394.10$.—Bright, golden-

yellow, hygroscopic & deliquesce. cryst.; 48.5%–50% Au.—SOL.: v. eas. W., A., E.

MAXIMUM OF IMPURITIES

Alkali Salts. 0.20%
Foreign Heavy Metals. Trace
Substcs Insol. A., & E. None

USES: Reag. f. alkaloids; testing suprarenal gland; prepar'g colloidal gold solut.; reagent f. glucose (Agostini), albumin (Axenfeld), O_3 (Böttger), Hg (Brugnatelli), tannin (Cavazza; Seyda), SCN (Colasanti), lignin (Dahlmann), aloe (Dietrich), syphilis (Eicke), cottonseed oil (Hirschsohn), indican (Lelli), spermatic fluid (Peset), iodine (Reichardt).

Gold Chloride Merck—Acid, Yellow—Auric

Gold Trichloride.— $AuCl_3.HCl + 3H_2O = 394.10$.—Yellow to reddish-yellow, v. deliq., acid. cryst.; caustic action on the skin w. form. of blisters, & on expos. to light leaves violet-brown stains. Cont's abt 48% Au.—SOL.: v. eas. W.; eas. A.—USES: *Intern.*, syph., scrofula, carcinoma.—*Extern.*, carcinoma, lupus, eye affect.—*Subcut.*, in snake bite, interstitially in local tubercul.—*Techn.*, prep'g colloidal Au solut. f. use in the so-called "gold reaction," f. diagn. syphilis, in which it is said to have a specific behavior towards the spinal fluid; photog., gold plating, gilding glass & porcelain, manuf. ruby glass.—DOSE: 0.004–0.01 Gm. ($\frac{1}{15}$ – $\frac{1}{6}$ grn.) 1–2 t.p.d.; Max. D.: 0.03 Gm. ($\frac{1}{2}$ grn.) single, & 0.1 Gm. (1½ grn.) p.d.—*Subcut.*: 1% solut. by interstitial inj. in snake bite, & loc. tuberc.

do. Merck—Acid, Brown

$AuCl_3.HCl + xH_2O$.—Brown, hygrosc. mass; cont. abt 50%–51% gold, & less W. than the yellow cryst.—SOL.: W., A., E.—ACTION: Antituberc.; Alter.—USES: *Intern.*, phth. & o. tuberc. affect.; lupus.—*Techn.*, in phot., electroplating, &c.—DOSE: 0.001–0.008 Gm. ($\frac{1}{80}$ – $\frac{1}{6}$ grn.).—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.06 Gm. (1 grn.) p.d.—CAUT.: Keep dry, & fr. light.

Gold Hydroxide—Auric

$Au(OH)_3 = 248.22$.—Brown powd.—SOL.: HCl; solut. NaCN; insol. W.—Sensit. to light.—Yields w. NH_3 gold fulminate which in dry form eas. explodes.—ACTION: Alter.; Antituberc.—USES: *Intern.*, chronic rheum., scrof., syph., phth.—*Techn.*, fixing Daguerreotypes, in gilding liquids, coloring rubber f. false teeth, porcelain manuf., &c.—DOSE: 0.003–0.015 Gm. ($\frac{1}{20}$ – $\frac{1}{4}$ grn.).—CAUT.: Keep in amber bot.

Gold Iodide Merck—Aurous

$AuI = 324.12$.—Greenish-yellow powd.; decomp. slowly even at ord. temp.—ACTION: Alter.—USES: *Intern.*, scrof. & tuberc. dis.—*Extern.*, as oint. (1%–2%).—DOSE: 0.004–0.01 Gm. ($\frac{1}{15}$ – $\frac{1}{6}$ grn.).

Gold Monobromide—Aurous

$AuBr = 277.12$.—Yellowish-gray mass; decomp. at abt 165° C.—Insol. in W.

Gold Monocyanide Merck—Aurous Cyanide

$\text{AuCN} = 223.21$.—Lemon-yellow, odorl., powd.; iridesc. in sunlight; stable in air.—**SOL.**: NH_4OH & solut. KCN ; insol. W. , A. , E. , dil. acids; slowly diss. by nitro- HCl , & on warm. w. conc. H_2SO_4 , w. pptn of Au .—**ACTION**: Antitubercular.—**USES**: Scrofula, tubercul., amenorrhea.—**DOSE**: 0.008 Gm. ($\frac{1}{80}$ grn.) 2–4 t.p.d.—**ANTID.**: Emetics, stomach siphon, artif'l respir., iron sulphate & persulphate, NH_3 , Cl , hot & cold douche, &c.—**CAUT.**: Poison!

GOLD ORANGE—see Methyl Orange

Gold Oxide Merck—Auric

Gold Trioxide.— $\text{Au}_2\text{O}_3 = 442.40$.—Brownish-black powd.—**SOL.**: HCl .—**ACTION**: Alter.; Antituberc.—**USES**: Chronic rheum., scrof., syph., phth., &c.—**Techn.**, for fixing Daguerreotypes, in gilding liquids, coloring rubber for false teeth, porcelain manuf., &c.—**DOSE**: 0.01–0.03 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.) sev'l t.p.d.—**CAUT.**: Keep in dark-colored bot.

Gold Sulphide—Aurous

$\text{Au}_2\text{S} = 426.46$.—Brown-black powd.—When freshly ppt'd forms a colloidal solut. in W. ; sol. in mixt. $\text{HCl} + \text{HNO}_3$.

GOLD, SULPHUR—see Antimony Sulphide, Golden

Gold Tribromide—Auric

$\text{AuBr}_3 = 436.96$.—Brownish-black powd.—**SOL.**: Slowly in W. w. reddish-brown color.—**ACTION**: Antiepileptic; Anod.; Nervine.—**DOSE**: Epilep., 0.006–0.012 Gm. ($\frac{1}{10}$ – $\frac{1}{5}$ grn.) 2 or 3 t.p.d.; migraine, 0.003 Gm. ($\frac{1}{20}$ grn.) 2 t.p.d. Children, half as much.—Also as test f. alkaloids (Selmi), & spermatic fluid (Dominicus).

GOLD TRICHLORIDE—see Gold Chloride

Gold Tricyanide—Auric

$\text{Au}(\text{CN})_3 = 275.24 = 1\frac{1}{2}$ to $3\text{H}_2\text{O}$.—Wh., hygroscop. cryst.—**SOL.**: W. .—**USES**: *Medic.*, tubercul.—**Techn.**, galvanoplatin.—**DOSE**: 0.003–0.006 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.).—**ANTID.**: As for gold monocyanide.

GOLD TRIOXIDE—see Gold Oxide, Auric

GOLD YELLOW—see Yellow T

Gold & Potassium Bromide

Potassium Auribromide.— $\text{AuBr}_3 \cdot \text{KBr} + 2\text{H}_2\text{O} = 592.01$.—Violet cryst.—**SOL.**: W. , A. .—**ACTION**: Antiepilep.; Sed.—**USES**: Epilepsy, hyst., &c.—**DOSE**: 0.01–0.04 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.), subcut.

Gold & Potassium Chloride

Potassium Aurichloride.— $\text{AuCl}_3 \cdot \text{KCl} + 2\text{H}_2\text{O} = 414.17$.—Yellow cryst.—**SOL.**: W. .—**USES**: Photography; painting porcelain & glass.

Gold & Potassium Cyanide Merck

Potassium Aurocyanide.— $\text{KAu}(\text{CN})_2 + 2\text{H}_2\text{O} = 324.36$.—Wh., cryst. powd.—**SOL.**: 7 W. .—**ACTION**: Active Antisept. One part to 25,000 sterilizes blood serum, & prevents develop. of pathogenic microbes.—**USES**: External tuberc.

(lupus, etc.) & syph. The action in syphilis is said to be scarcely inferior to that of salvarsan.—**Techn.**, for electrogilding.—**DOSE**: 0.02–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.) f. adults; in pulmon. tuberc., 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.) ev. 3–4 days; in syph., 0.01 Gm. ($\frac{1}{80}$ grn.) ev. 3–4 days; in lupus, 0.03–0.05 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.), 12 inj. being given in 4–5 weeks; 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) f. childr., intraven. ev. 2–3 days, in 1% solut. w. 0.6% NaCl .—**ANTID.**: Emetics, stomach pump, iron sulphate & persulphate, douche, artif'l respir., NH_3 , Cl .—**CAUT.**: Poison!

Gold & Potassium Iodide

Potassium Auriciodide.— $\text{AuI}_3 \cdot \text{KI} = 743.98$.—Lustr. black cryst.—**SOL.**: Dil. solut. KI ; in W. w. decomp.

Gold & Sodium Bromide Merck

Sodium Auribromide.— $\text{AuBr}_3 \cdot \text{NaBr} + 2\text{H}_2\text{O} = 575.91$.—Black-brown cryst.—**SOL.**: W. .—**ACTION**: Antiepileptic.—**DOSE**: 0.5 cc. (8 M) grad. incr. to 2 cc. (30 M), of 2% aqu. solut., hypoderm.

Gold & Sodium Chloride Merck—U.S.P. IX

Mixt. of AuCl_3 & NaCl .—Not less than 30% Au .—Orange-yellow, cryst. powd.; light-sensitive, & deliquesces on expos. to damp air.—**SOL.**: Eas. W. ; part. in A. or E. .—**USES**: *Intern.*, syph., whoop-cough, cancer, hyst., neural., rheum., dipsomania, progressive paral. of syphilitic origin, &c.; also f. diagnos'g syphilis & paralysis.—**Techn.**, as test f. glucose (Agostini), albumin (Axenfeld), O_3 (Böttger), Hg (Brugnatelli), tannin (Cavazza), Seyda), SCN (Colasanti), lignin (Dahlmann), aloes (Die-trich), organ. substcs (Dupasquier), cotton seed oil (Hirschsohn), indican (Lelli), spermatic fluid (Peset), I (Reichardt).—**DOSE**: 0.0025–0.01 Gm. ($\frac{1}{24}$ – $\frac{1}{6}$ grn.); aver. dose 0.005 Gm. ($\frac{1}{12}$ grn.).—**Subcut.**, 0.005 Gm. ($\frac{1}{12}$ grn.).—**MAX. D.**: Variously stated as 0.03 Gm. ($\frac{1}{2}$ grn.), & 0.05 Gm. ($\frac{3}{4}$ grn.) single, & 0.125 Gm. (2 grn.), & 0.2 Gm. (3 grn.) p. day.—**INCOMPAT.**: AgNO_3 , FeSO_4 , $\text{H}_2\text{C}_2\text{O}_4$, alkalies, alkaloids, arsenites, hypophosphites, mercurous salts, organic substcs, KI , SO_2 , & vegetable infusions.—**CAUT.**: Keep well stoppered.

do. Merck—Photographic

Mixt. AuCl_3 & NaCl .—20% Au .—Yellow powd. or cryst. mass; hygroscop. & light-sensit.—**USES**: Photogr., decorating porcelain, & stain'g glass.

Gold & Sodium Cyanide

Sodium Aurocyanide.— $\text{NaAu}(\text{CN})_2 = 272.23$.—Wh., cryst. powd.—**SOL.**: W. .—**USES**: Electro-gilding.—**ANTID.**: As of gold & potassium cyanide.—**CAUT.**: Poison!

Gold & Sodium Thiosulphate Merck

Sodium Aurothiosulphate; Aurous Sodium Thiosulphate.— $\text{Na}_3\text{Au}(\text{S}_2\text{O}_3)_2 + 2\text{H}_2\text{O} = 527.47$.—Wh., odorl. cryst.; abt 37% Au .—**SOL.**: 2 W. (solut. pract. neutral); insol. A. .—**USES**: Lupus erythematosus.—**DOSE**: Initial dose by intra-

ven. inj. 0.05 Gm. ($\frac{3}{4}$ grn.) in 2 cc. (30 M) sterile dist. W.; if no untoward effects result, a like dose may be given after 5-7 days, followed by weekly injections of increasing doses, up to 0.1 Gm. ($1\frac{1}{2}$ grn.). In the disseminated type the initial dose should be 0.025 Gm. ($\frac{5}{12}$ grn.) w. grad. increase to 0.05 Gm. ($\frac{3}{4}$ grn.) & then perhaps to 0.1 Gm. ($1\frac{1}{2}$ grn.).—*Contra-indicated* in pregnancy.—Mktd in ampuls of various dosages, e.g., 0.05 Gm., 0.1 Gm., 0.2 Gm., 0.3 Gm., 0.5 Gm., & 1.0 Gm., ea.

Gold-Alumina Purple

Violet powd.—USES: Decorating porcelain.—(See also Gold-Tin Purple).

Gold-Palladium Chloride Paper

Wh. paper charged w. a solut. of gold & palladous chlorides & dried.—USES: Analysis of illuminating gas.

GOLD-TIN PRECIPITATE—see Gold-Tin Purple

Gold-Tin Purple

Purple of Cassius; Gold-tin Precipitate.—Cont's gold, tin, & oxygen; constitution still uncertain.—Fr. dil. neut. solut. AuCl_3 w. SnCl_2 & SnCl_4 .—Brown powd.—SOL.: NH_4OH .—USES: *Techn.*, manuf. ruby glass, colored enamels, & painting porcelain.

GOLDEN RAGWORT—see Senecio

GOLDEN SEAL—see Hydrastis

GOLDENROD, SWEET-SCENTED—see Solidago

GOLDTHREAD—see Coptis

Golgi's Osmic-Silver Nitrate

Consists of 2 soluts.: (a) 1.6 Gm. $\text{K}_2\text{Cr}_2\text{O}_7$, 0.1 Gm. OsO_4 , & 90 cc. W.; (b) an aqu. 0.75% solut. AgNO_3 .—USES: Demonstrating proliferations of ganglia cells.

GOMENOL—see Oleogomenol

Gonosan

Kavasantal.—20% solut. α - & β -resins of Kava (Piper methysticum, Forst.) in santal oil.—ACTION: Mild Diur.; Urinary Anesth.; Antisep.—USES: Gonorrh., cystitis.—DOSE: 0.3-0.6 cc. (5-10 M) sev'l t.p.d. in caps. (as mktd).

GOOROO NUTS—see Kola

GOOSE-GRASS—see Galium

Gossypin

Concentration fr. root-bark of Gossypium herbaceum, L. (Cotton-root bark).—Brown powd.—ACTION: Emmen.—USES: In labor, uter. hemorrhage, &c.—DOSE: 0.2-0.6 Gm. (3-10 grn.).

GOSSYPOSE—see Raffinose

GOULARD'S EXTRACT—see Lead Subacetate, Solution

GOULARD'S LOTION OR WATER—see Lead Subacetate, Diluted Solution

Gouver's Solution—Test for Albumin

Aqu. solut. KI & $\text{Hg}(\text{CN})_2$.—Gives a white ppt. w. albumin.

GRAIN OIL—see Alcohol Amylic, Technical

GRAINS OF PARADISE—see Amomum Melegueta

Gram's Solution—For Staining Bacteria

Iodine, 1 Gm.; KI, 2 Gm.; W., 200 cc. (U.S.P. IX).

do. —For Counter-staining Bacteria

15 cc. aniline, 7 cc. sat. alcoh. solut. methyl violet 6 B, 10 cc. absol. A., & W. to make 100 cc. (U.S.P. IX).

GRAMINIS—see Triticum

GRAPE ROOT, OREGON—see Berberis

GRAPE SUGAR—see Dextrose

Graphite—Mineral

Plumbago; Black Lead; Mineral Carbon; Wad.—OCCUR.: England, Norway; Ural; Finland; Bavaria; Siberia; Ceylon; U. S.—COMP.: Crystallized carbon w. traces of Fe, SiO_2 , etc.—CRYST. SYST.: Hexag.—LUSTER: Metallic to dull.—COLOR: Dark-gray to black.—STREAK: Dark-gray.—CLEAV.: Perfect basal.—HARDN.: 1-2; feels greasy to touch, & soils the fingers.—Sp. Gr.: 2.09-2.23.—USES: *Techn.*, i. "lead" pencils, refractory crucibles, stove polish, in galvanoplastics, as pigment, lubricant, graphite cement, matches & explosives, commutator brushes, anodes, arc-light carbons, polishing comp'ds, & for rust- & needle-paper.

Gratiolin

$\text{C}_{20}\text{H}_{34}\text{O}_7$ = 386.37.—Glucoside fr. herb of Gratiola officinalis, L.—Brownish-yellow powd.; exhibits the drastic purg. effect of herb.—SOL.: A., sltly W.; insol. E.

GRATUS STROPHANTHIN—see Ouabain

GRAY ACETATE—see Calcium Acetate, Technical

GRAY ANTIMONY—see Antimony Sulphide

GRAY COPPER ORE—see Tetrahedrite

GRAY OIL—see Mercurial Oil

GREEN BROOM—see Scoparius

GREEN CINNABAR—see Chromium Oxide, Anhydrous

GREEN ENDIVE—see Lactuca

GREEN HELLEBORE—see Veratrum Viride

GREEN HYDROQUINONE—see Quinhydrone

GREEN MERCURY PROTOIODE—see Mercury Iodide, Green, Mercurous

GREEN OSIER—see Cornus Circinata

GREEN SOAP—see Soap, Soft

GREEN VERDIGRIS—see Copper Acetate, Basic

GREEN VITRIOL—see Iron Sulphate, Ferrous, Technical

GREENHEART—see Bebeeru Bark

GREENISH BLUE—see Methyl Blue

Grenacher's Alcoholic Acid Carmine

1 Gm. carmine, 1–2 cc. HCl, & 100 cc. dil. A. (sp. gr. 0.890).—**USES:** Staining nuclei.

do. Alcoholic Borax-Carmine

2 Gm. carmine & 4 Gm. borax in 100 cc. W. & 100 cc. dil A. (sp. gr. 0.890).—**USES:** Staining nuclei.

do. Alum-Carmine

5 Gm. potass. alum & 1 Gm. carmine in 100 cc. W.—**USES:** Stain (bluish-red) for nuclei, & f. muscle tissue.

Griess' Paper—Red

Wh. paper, charged w. sulphanilic acid & naphthylamine sulphate.—**USES:** Detect. HNO_2 & nitrites (red color) in urine; also bilirubin & aldehydes.

do. —Yellow

Metaphenylenediamine Paper.—Wh. paper charged w. sulphanilic acid & metaphenylenediamine.—**USES:** Delicate test f. HNO_2 (yellowish-brown color).

Grindelia—N.F. V; B.P.; Fr. Cod.

Gum-plant.—Dried lvs & flowering tops of *Grindelia camporum*, Greene, or of *G. cuneifolia*, Nuttall, or *G. squarrosa*, Dunal, *Compositae*.—**HABIT.:** North America (California).—**CONSTIT.:** Volat. oil; resins (over 20%, B.P.C.); hentriacontane; grindeline; saponin; tannin; robustic acid.—**ACTION:** Expectant.; Antispasmod.; Sedat.; Tonic; Stomachic; Diuretic.—**USES:** Asthma, bronch., hay fever, whooping-cough, bladder catarrh, chron. vaginitis.—**Extern.,** in burns, leucor., gonorr., &c.—**DOSE:** 1–4 Gm. (15–60 grn.); aver. dose 2 Gm. (30 grn.).—**Aqu. extr.,** 0.2–0.6 Gm. (3–10 grn.).—**Fl'dextr.,** 1–4 cc. (15–60 M).

GROSSMANN'S REAGENT—see Dicyandiamidine Sulphate

GROUND APPLE—see Chamomile

GROUND HOLLY—see Chimaphila

GROUND LILY—see Trillium

GUACETIN—see Guaiacetin

Guaco

Whole plant *Mikania Guaco*, Hb. & Bpl., *Compositae*.—**HABIT.:** U.S. of Colombia; Mexico; Martinique.—**CONSTIT.:** Guacin (a bitter principle).—**ACTION:** Antispasmod.; Antisyphilitic; Febrif.; Anthelmint.—**USES:** Snake-bite, cholera, syph., colic, nerv. dis., diar. & chron. rheum.—**DOSE:** 1–5 Gm. (15–75 grn.) in powd. or 20–30 cc. (5–8 fl. dr.) of 1:50 infus.—**Fl'dextr.,** 2–4 cc. (30–60 M).—**Tr.,** 4–15 cc. (1–4 fl. dr.).

Guaiac—N.F. V; B.P.

Gum or Resin Guaiac.—Resin fr. wood of *Guaiacum officinale*, L., or *G. sanctum*, L., *Zygophyllaceae*.—Brown or greenish brown, irregular lumps.—**SOL.:** Eas. A., C., E., creosote, soluts. of alkalis; sltly B., CS_2 .—**MELT.:** 85°–90° C.—**CONSTIT.:** Guaiaretic acid (abt. 11%, B.P.C.); α - & β -guaiacetic

acids (abt 70%, B.P.C.); guaiac beta-resin (15%, B.P.C.); guaiacic acid; guaiac yellow; guaiac-saponin.—**ACTION:** Antisyphil.; Alterative; Antirheumat.; Antipodagr.; Antiscrofular.—**USES:** *Intern.,* scrofula, syphilis, chronic rheumatism, gout, amenorrhea, scarlet fever.—*Techn.,* as test f. blood (Gehrmann; Müller; Zoeppritz; Almén; Bardach; Brücke; v. Deen; Hühnerfeld; Inouye; Ladendorf; Mialhe; Schärer; Schumm; Spehl; Vitali), HCl (Simon), milk (Arnold-Mentzel; Arnold-Weber; Carcano-Schern), diastase (Lintner; Neumann-Wender), HCN (Preyer; Schönbein), HgCl_2 (Piron-Delin), CrO_3 (Schiff), alkaloids & glucosides (Schlagdenhauffen), Cu (Schönbein), pus (Vitali).—**DOSE:** 0.3–2 Gm. (5–30 grn.) in powd. or tinct.; aver. dose 1 Gm. (15 grn.).—**INCOMPAT.:** (of liquid preps), min. acids, acacia, Cl water, FeCl_3 , AuCl_3 , permanganates, spirit nitrous ether, water.

do. Wood—B.P.

Lignum Vitæ; Pockwood.—Heart-wood of *Guaiacum officinale*, L. & of *G. sanctum*, L., *Zygophyllaceae*.—**HABIT.:** West Indies; Central America.—**CONSTIT.:** Resin (20%–25%, a mixt. of guaiaretic, guaiacetic, & guaiacic acids); guaiasaponin; guaiasaponic acid; guaiaguttin.—**ACTION:** Alter. (in gout, rheum. & syphilis); Diaphor.; Expectant.; Stim.; Antisep.; Astring.—**USES:** Scrofula, amenorr., scarlet fever, chron. rheum.—**DOSES:** 0.6–4 Gm. (10–60 grn.); aver. dose 4 Gm. (60 grn.).—**Alcoh. extr.,** 0.2–0.6 Gm. (3–10 grn.).—**Fl'dextr.,** 0.6–4 cc. (10–60 M).—**Tr.** (1:5), 2–4 cc. (30–60 M).—**Ammon. Tr.** (1:5), 2–4 cc. (30–60 M).

Guaiac-Copper Sulphate Paper

Schönbein-Pagenstecher's Paper.—Wh. filter paper impreg. first w. an alcoh. solut. guaiac resin, then, after drying, w. an aqu. solut. CuSO_4 .—**USES:** Detect. HCN (slightest trace colors paper blue).

Guaiacetin

Guacetin; Sodium Pyrocatechinmonacetate; Sodium Phenonacetate.— $\text{C}_6\text{H}_4(\text{OH}).\text{OCH}_2\text{COONa}$ = 190.10.—**Wh. powd.**—**SOL.:** Abt 30 W.—**USES:** Inst. of creosote in tubercul., bronch., anemia, scrof., & rachitis.—**DOSE:** 0.5 Gm. (8 grn.) sev'l t.p.d., children, 0.25 Gm. (4 grn.) 3 t.p.d.

Guaiacin

Brownish, amorph, powd., obt. by a special method fr. guaiac wood.—**SOL.:** A.—**USES:** In 5% alcoh. solut. as exceed, sensit. test f. oxidas (blue color); far more sensit. than guaiac resin (Schmitt).—**CAUT.:** Keep solut. in dark, well filled bots.

Guaiacodeine

Codeine Orthoguaiacolsulphonate.— $\text{C}_{18}\text{H}_{21}\text{NO}_3\text{C}_6\text{H}_3(\text{OH})(\text{OCH}_3)\text{HSO}_3[1:2:6] = 503.43$.—Obt'd by double decomp. of a soluble codeine salt w. potassium or barium orthoguaiacolsulphonate.—**Wh. cryst. powd.**—**SOL.:** 90 cold, v. sol. hot, W., 450 A., & 30 methyl A.; v. sltly C.; insol. E.—**MELT.:** 163°–165° C.—**USES:** As of codeine.

Guaiacol—Synthetic—U.S.P. X; B.P.; Fr. Cod.

Monomethylcatechol; Methyl Ester of Protocatechin; Pyrocatechin Monomethyl Ester.— $C_6H_4(OH)OCH_3[1:2] = 124.10$.—Colorl., or yellowish, cryst. mass; charact. arom. odor; darkens on expos. to air & light.—SOL.: 70 W., A., C., E.—MELT.: Abt 28° C. When liquefied may remain liquid f. a long time even at lower temperature.—Sp. Gr.: Abt 1.132 at 25° C.—BOIL.: 204°–206° C.—ACTION, USES, & DOSES: As of the following.

do. Merck—U.S.P. X

Colorl., or yellowish, v. refractive liq.; charact. odor. us'ly obt'd fr. wood creosote.—SOL.: 60–70 W., 1 G., at 25° C., & misc. w. A., C., E., glacial acetic acid, U.S.P.—BOIL.: Not less than 85% distils betw. 200°–210° C.—Sp. Gr.: Not below 1.112 at 25° C. ACTION: Antitubercular; Antisep.; Antipyr.; Analges.—USES: *Intern.*, phth., lupus, pneumon., typhoid, pleurisy, bronchitis, acute gout, artic. rheumat., miliary & intest. tubercul., & febrile affect. Must be used long time to get max. benefit.—*Extern.*, epididymitis, surgic. tubercul., pleurisy; variola; furunculosis; phlegmons, phlebitis, tendovaginitis, periostitis, pruritus, gout, mumps, etc.; pneumonia in 10%–30% solut. in alcoh. or oil, or 8%–15% oint.—*Techn.* as test f. lactic & glycolic acids & peroxidase, & also f. HNO_2 (Adrian), chelidonine & narceine (Battandier), milk (Bruère; Dupouy; Rothenfusser; Schern), lignin (Czapek), dioxyacetone (Denigès), acacia (Payet).—DOSE: 0.12 cc. (2 M) 3 t.p.d., grad. incr. to 1 cc. (15 M) in pills, or in 1%–2% solut. after meals; aver. dose 0.5 cc. (8 M).—MAX D.: 1 cc. (15 M) single; 2 cc. (30 M) p.d.—APPL.: *Analg.* & *Antipyr.* 1–2 cc. (15–30 M), pure or w. eq. part oil, A. or G. As oint. by inunct., 0.5–1 cc. (8–15 M) p.d. in meningitis; in variola 1:80 olive-oil solut. ev. 4 hrs appl. to pocks; in perioritis, 10% oint.; in mumps, 5% oint.; in gout, 20% olive-oil solut.; in pneum., 6 cc. (90 M) appl. to back & covered w. cotton.—VETER. MED., as antitubercular, expectorant, & antisept.; *cattle* 5–15 cc. (1¼–4 fl. dr.); *sheep & pigs*, 1–2 cc. (15–30 M); *dogs*, 0.05–0.2 cc. (¾–3 M).—CAUT.: Must not be exposed to light.

Guaiacol Benzoate

Benzosol; Benzoylguaiacol.— $C_6H_4(OCH_3)O.C_6H_5.CO = 228.17$.—Colorl., odorl., alm. tastel., cryst. powd.—SOL.: Hot A., E., C.; alm. insol. W.—MELT.: 59°–61° C.—ACTION: Antituberc., & Intest. Antisep.—USES: Pulm. tuberc., chron. bronch., cystitis, chron. gastr. & intest. catarrh, diab. mell., & as intest. antisept. in diarrhea & typhoid.—DOSE: 0.25 Gm. (4 grn.) grad'ly incr. to 0.8 Gm. (12 grn.) 3 t.p.d.; according to other statements, the dose may range from 0.3–0.6 Gm. (5–10 grn.) sev'l t.p.d.—MAX. D.: 2.6 Gm. (40 grn.) p.d.—VETER. MED., as expectorant & intern. antisept., *dogs*, 0.25 Gm. (4 grn.) 3 t.p.d.

Guaiacol Cacodylate Merck

Mixt. of molecular quant. of guaiacol & cacodylic acid, $C_6H_4(OH)OCH_3 + (CH_3)_2AsO.OH$.—Wh. to reddish-wh. cryst. powd.; decomp. at 270° C.—SOL.: Eas. hot W.; v. eas. A.; oils.—USES: In tubercul. & influenza by subcut. or intramusc. inject. of 5% aqu. sol. to which abt 1% guaiacol is added to prevent possibility of separation.—DOSE: 0.05–0.1 Gm. (¾–1½ grn.) in 1 cc. (15 M) sterile olive oil solut., ev. o. day, or 1 cc. (15 M) of a 5% solut. ev. 2–3 days.

Guaiacol Carbonate Merck—U.S.P. X

$(C_6H_4OCH_3O)_2CO = 274.19$.—Wh., odorl., pract. tastel. cryst., powd.—SOL.: 60 A., 1 C., 18 E., at 25° C., freely in boil. A. & B., sltly G. & fatty oils, & insol. W.—MELT.: 85°–88° C.—ACTION: Antituberc.; Antisep.—USES: Tubercul. inst. of guaiacol & creosote.—DOSE: 0.25–0.5 Gm. (4–8 grn.), grad. incr. to 6 Gm. (90 grn.) p.d.; aver. dose 1 Gm. (15 grn.).—VETER. MED., Intern. in diarrh. of horses, cattle & dogs; extern. in wounds, ecz., burns, saddle wounds, etc.; *horses & older cattle*, 20 Gm. (5 dr.) 3 t.p.d.; *calves*, 5–10 Gm. (75–150 grn.)

Guaiacol Cinnamate

Styracal; Cinnamyl-guaiacol.— $C_6H_4.OCH_3.OCO.CH:CH.C_6H_5$.—Colorl., odorl., tastel. need.—SOL.: A., B., C., acetone, hot olive oil; insol. W.—MELT.: 130° C.—ACTION: Antisep.; Germic.—USES: *Intern.*, tuberculosis, chronic vesical catarrh, diar., dysent., gonorr., &c.—*Extern.*, wounds & ulcers.—DOSE: 1 Gm. (15 grn.) 3–4 t.p.d.; childr., 0.5 Gm. (8 grn.); infants, 0.25 Gm. (4 grn.).

Guaiacol Ethylene

Guaiacol Ethylene Ether.— $(CH_3O.C_6H_4O)_2.C_2H_4 = 274.22$.—Colorl. to sltly yellowish need.—SOL.: Eas. hot A.; v. sltly W.—MELT.: 138° C.—USES: In phth. as other guaiacol derivatives.—DOSE: 0.5–1 Gm. (8–15 grn.) 2 t.p.d.

GUAIACOL ETHYLENE ETHER—see Guaiacol Ethylene

GUAIACOL GLYCERYL ESTER—see Guaiamar

GUAIACOL METHYLGLYCOLATE—see Monotal

GUAIACOL OLEATE, or OLEIC ESTER—see Oleo-guaiacol

Guaiacol Phosphate

$(C_6H_4O.CH_3O)_3PO = 416.31$.—Wh., cryst. powd.—SOL.: Hot A., eas. C., toluene, acetone; insol. W., E.—MELT.: 98° C.—USES, &c.: As of guaiacol.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

Guaiacol Phosphite

Guaiacophosphal.— $P(O.C_6H_4.OCH_3)_3 = 400.31$.—Wh. powd.; pungent taste; abt. 92% guaiacol.—SOL.: W., A., G., E., C., acetone, oils.—MELT.: 77.5° C.—ACTION, USES, & DOSE: As of guaiacol.

GUAIACOL SALICYLATE—see Guaiacpl-Salol

Guaiaacol Valerate

$C_6H_4.OCH_3.O.COC_4H_9 = 208.19$.—Colorl. to yellowish liq.—SOL.: v. eas. A., B., C., E.; insol. W.—SP. GR.: 1.05–1.06 at 15.5° C.—BOIL.: 265°–275° C.—USES: Tuberc.; also as tonic in anemia & chlorosis.—*Extern.*, as paint f. lupus.—DOSE: 0.12–0.3 cc. (2–5 M) in gelat. caps.—Subcut. in osteal & articular rheumat., 0.25–1 cc. (4–15 M) weekly.

Guaiaacol-Iodoform

Solut. 1 iodoform & 1 expressed oil almond in 4 guaiaacol (Hager).—Reddish-brown, syr. liq.—SOL.: A., C., E., oils.—USES: In tubercul. & pleurisy.—DOSE: *Subcut.*, up to 3 cc. (45 M) of a 1:16 olive-oil solut., in the supraspinous fossa; *per os*, 0.2 cc. (3 M) in gelat. caps.

Guaiaacol-Salol

Guaiaacol Salicylate Merck.— $C_6H_4.O.CH_3.C_7H_5O_3 = 244.17$.—Wh. cryst. tastel. powd.—SOL.: A.; eas. C., E.; insol. W.—MELT.: 65° C.—ACTION: Intest. Antisep.; Antituberc.; Antirheum.—USES: Phth., diar., dysent., rheum., marasmus, chorea. &c.—DOSE: 1 Gm. (15 grn.) sev'l t.p.d.—MAX. D.: 10 Gm. (150 grn.) p.d.

GUAIACONRESIONOL—see Acid Guaiaconic

Guaiaamar

Guaiaacol Glyceryl Ester.— $OCH_3.C_6H_4.OC_3H_7O_2 = 198.16$.—Wh., cryst. powd.; bitter, arom. taste.—SOL.: 20 W., A., C., E., G.—MELT.: 75° C.—ACTION: Intest. Antiseptic.—USES: *Intern.*, phthisis, cystitis, chron. diar.; pulm. affect., autointox., typhoid, acute rheum., bedsores, wounds, lacerations, & fermentative processes of gastric tract.—*Extern.*, acute artic. rheumat. (25% oint.), blenorragic arthritis, burns, phagedenic & syphilitic sores, &c.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

Guaiaquin

Quinine Guaiaacolbisulphonate.— $C_6H_4O_2CH_3.HSO_3.C_20H_{24}N_2O_2 = 528.47$.—Yellowish, acid, bitter powd.; 61.36% quinine, 23.48% guaiaacol.—SOL.: W., A., dil. acids.—ACTION: Antiper.; Intest. Antisep.—USES: Kala-azar, malarial cachexy.—DOSE: 0.3–0.6 Gm. (5–10 grn.) 3 t.p.d. bef. meals.—Subcut. in 10% solut.

Guanidine

Iminourea; Carbamidicacid-Amidin.— $NH_2C:(NH).NH_2 = 59.07$.—Fr. NH_4SCN by heat; or fr. cyanamide & NH_4Cl ; & other ways.—Caustic colorl. cryst.; take up CO_2 fr. the air.—SOL.: W., A.—USES: Organ. synthesis.

Guanidine Carbonate

Carbamide Carbonate.— $(NH:C[NH_2]_2)_2.H_2CO_3 = 180.16$.—Wh. cryst.—SOL.: Eas. W.; insol. A.—MELT.: 197° C.—USES: Test f. hypophosphoric acid (Rosenheim); also in 1:15 solut. inst. of Na_2CO_3 to ppt. Cu, Co, Ni, Mn, Zn, Cd, & Mg; being volatile, the carbonate is eas. removed fr. the ppt. by ignition.

Guanidine Hydrochloride

$NH:C(NH_2)_2.HCl = 95.54$.—Wh., cryst. powd.—SOL.: Eas. W., A.

Guanidine Nitrate

$NH:C(NH_2)_2.HNO_3 = 122.09$.—Wh., cryst. powd.—SOL.: W. & A.

Guanine

Amino-oxy purine; Iminoxanthine.— $NH.CH:N.C:C.CO.NH.(C:NH).NH = 151.11$.

—Fr. guano or fish scales; also synthet. fr. dichlorhypoxanthine, NH_3 & HI .—Wh. to yellowish-wh., amorph. powd.—SOL.: KOH & acids; insol. W., A., & E.—USES: Manuf. artif. pearls (used in amyl acetate suspension).

Guanine Hydrochloride

$C_5H_5N_5O.HCl + H_2O = 205.59$.—Wh. cryst. powd.; eas. decomp.—SOL.: In sltly acidul. W. & in KOH; insol W., A., E.

GUANYLUREA SULPHATE—see Dicyandiamidine Sulphate

Guarana—N.F. V.; B.P.C.

Brazilian Cocoa.—Dried paste consist'g chiefly of crushed seeds of Paulinia Cupana, Kunth (P. sorbilis, Martius), Sapindaceae, cont. not less than 4% caffeine. N.F.—HABIT: Brazil.—CONSTIT.: Caffeine (2.5%–5%, B.P.C.); tannin; resin; volat. oil; saponin; starch; fat.—ACTION: Antineuralgic; Astring.; Stim.; Tonic; Nervine.—USES: Headache, chron. diar., & nerv. affect.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr., 1.3–4 cc. (20–60 M).—Tr. (1:4), 4–8 cc. (60–120 M).

GUARANHAM—see Monesia

Guaranine

$C_8H_{10}N_4O_2 + H_2O = 212.14$.—Fr. guarana; chem. ident. w. caffeine & theine.—Fine, wh. cryst. powd.—SOL.: A., W.; v. sltly E.; v. eas. hot W. & C.—USES: As of caffeine.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

GUENZBURG'S PAPER—see Phloroglucinol-Vanillin Paper

Guenzburg's Solution—For Detecting free HCl in Gastric Juice

Phloroglucin-Vanillin Solution.—Solut. 2 Gm. phloroglucin & 1 Gm. vanillin in 30 Gm. A. On evaporating w. some of the liquid to be tested a red marginal zone forms if free HCl present.

Guignet's Green

Chromic oxide w. chromium hydroxide.—Variable composition.—Fr. K_2CrO_4 & H_3BO_3 by fusion & wash'g w. W.—Green powd. or paste.—Insol. W.—USES: Valuable green pigment.

GUINEA GRAINS—see Amomum Melegueta

GULANCHA—see Tinospora

GUM AMMONIAC—see Ammoniacum

GUM ARABIC—see Acacia

GUM BENJAMIN, or BENZOIN—see Benzoin

GUM CAMPHOR—see Camphor

GUM COPAL—see Copal

GUM DAMAR—see Damar

GUM ELASTIC—see Rubber

GUM ELEMI—see Elemi

GUM GUAIAIC—see Guaiaic

GUM KINO—see Kino

GUM OPIUM—see Opium

GUM PLANT—see Eriodictyon; Grindelia

GUM-RESIN MYRRH—see Myrrh

GUM THUS—see Olibanum

GUM TRAGACANTH—see Tragacanth

GUM WOOD—see Eucalyptus

GUN COTTON, SOLUBLE—see Pyroxylin

GURU NUTS—see Kola

Gutta-Percha—Sticks—N.F. IV

Purif., coagulated, milky exudate of var. trees of the genus *Palaquium*, Blanco, Sapotaceæ.—HABIT.: Malayan Archipelago.—SOL.: Part. in C., CS₂, petrol. E., or oil turpent.; insol. W.—MELT.: Becomes pliable at 25°–30° C., & plastic at 60° C.; melts at 100° C. w. part. decomp.—CONSTIT.: Gutta; fluavil; alban; guttane.—USES: *Techn.*, f. dental cement; gutta-percha tissue; insulating in electrotechnic, &c.; splints f. fractures & diseased joints; in C. solut. inst. of collod.—CAUT.: Keep under W., & fr. light.

GUTTA-PERCHA SOLUTION—see Traumaticin

Gynergen

Ergotamine Tartrate.—(C₃₃H₃₅O₅N₅)₂·H₂C₄H₄O₈ = 1313.04.—Colorl. cryst.—SOL.: 500 W., 500 A.—Blackens at 177° C. & decomp. at 184° C.—ACTION & USES: Increase blood pressure; induce uterine contraction; in hemorrh. following abortion, after curettage, & in post partum endometritis.—DOSE: *Intern.*, 0.001–0.002 Gm. (1/60–1/30 grn.); aver. dose intramusc. or hypoderm., 0.00025 Gm. 1/240 grn.).

Gypsum—Mineral

OCCUR.: U. S.; Nova Scotia; France; England; Tyrol; Germany; Russia; Switzerland; Italy & elsewhere.—COMP.: CaSO₄ + 2H₂O.—CRYST. SYST.: Monosym.—LUSTER: Pearly, silky, vitreous, or dull.—COLOR.: Wh.; somet. gray, red, yellow, or blue. Black or brown when impure.—STREAK: Wh.—CLEAV.: Perfect clinopinacoidal, fair orthopinacoidal, & fair parallel to the positive unit pyramid.—HARDN.: 1.5–2.—SP. GR.: 2.314–2.328 (pure cryst.).—USES: Manuf. plaster of Paris, mortar, etc.; diluent for mineral pigments; filler f. paper; in native form, as alabaster; for articles of ornament, vases, statuary, etc.

GYPSUM, ARTIFICIAL—see Calcium Sulphate, Precipitated

GYPSUM, DRIED—see Calcium Sulphate, Dried

H

HAEMOSTASIN—see Epinephrine

Hager's Solution—Test for Glucose

Solut. 30 Gm. HgO, 30 Gm. sodium acetate & 50 Gm. NaCl, in 400 cc. W. acidul. w. 25 Gm. glacial acetic acid.—In presence of glucose, the HgCl₂ is reduced to HgCl on heating.

Hager-Gawalowski's Solution—Test for Glucose

Neutral, aqu. solut. ammon. molybdate.—Gives a blue color w. glucose at 100° C. In acid solut. the blue color is also given by dextrin & saccharose.

HAHNEMANN'S SOLUBLE MERCURY—see Mercury Oxide, Black

Haine's Solution—Test for Glucose

Solut. 2 Gm. CuSO₄ w. 20 Gm. G. & 9 Gm. KOH in 175 Gm. W.—Reduced by glucose.

Halazone

Parasulphonedichloramidobenzoic Acid.—C₆H₄·(SO₂NCl₂)COOH[1:4] = 270.06.—Wh. powd.; strong Cl odor.—SOL.: B., glac. acetic acid, sltly in W., C.; insol. petrol. E.—MELT.: 213° C.—ACTION: Powerful Disinf.—USES: As of chlorine, partic. f. sterilizing water (0.004–0.008 Gm. [1/15–1/8 grn.] halazone w. an equal wt anhydrous Na₂CO₃ & NaCl per liter).

HAMAMELIDIN—see Hamamelin

Hamamelin—B.P.C.

Hamamelidin.—Extr. fr. dried lvs or bk *Hamamelis virginiana*, L.—Brownish, somewh. hygrosc. powd.—SOL.: A.—ACTION: Hemost.; Astring.; Tonic.—USES: Hemorrhoids, & hemorrhages of lungs, uterus, & stomach.—DOSE: *Hemost.*, 0.3–1.3 Gm. (5–20 grn.); *tonic*, 0.06–0.3 Gm. (1–5 grn.).—In piles, as supposit. of 0.12–0.3 Gm. (2–5 grn.) ea.

Hamamelis—N.F. V; B.P.

Witchhazel; Winter Bloom; Snapping Hazel; Striped (Spotted) Alder; Tobacco Wood; Wychhazel.—Dried lvs (bark also, B.P.) of *Hamamelis virginiana*, L., Hamamelidaceæ, collected in autumn.—HABIT.: N. America (New England to Minnesota southward to Louisiana).—CONSTIT.: *Lvs*: Tannin; gallic acid; volat. oil; bitter principle.—*Bark*: Gallic acid; hamamelo-tannic acid; fat; phytosterol; glucose; bitter & pungent principles; resin.—ACTION: *Lvs*: Tonic; Astring.; somewh. Sedat.; extern. in skin dis.—*Bark*: Antisep.; Tonic; Astring.; Stypt.—USES: Varicose veins, hemorrhoids, gonorr., leucorr., &c.—DOSES: *Lvs*: 1–4 Gm. (15–60 grn.), aver. 2 Gm. (30 grn.), in decoct. or as fl'dextr.—*Bark*: 1–3 Gm. (15–45 grn.).—Alcoh. extr. 0.2–0.6 Gm. (3–10 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—Tr. (1:10), 0.6–4 cc. (10–60 M).

Hamann's Acetic Carmine

Solut. 15 Gm. carmine in 100 cc. NH_4OH w. acetic acid added to just faintly acid react.—
USES: As of o. carmine stains.

HAMBURG BLUE—see Copper Carbonate, Blue

HARMALINE—see Fuchsine, Dye

Harmine

$\text{C}_{13}\text{H}_{12}\text{N}_2\text{O} \cdot \text{HCl} + 2\text{H}_2\text{O} = 284.68$.—The hydrochloride of an alkaloid fr. *Peganum harmala*, chem., physically & pharmacologically ident. w. banisterine, the alkaloid obt. fr. *Banisteria Caapi*.—Wh. cryst.—SOL.: 40 W. at 20°C ., & more eas. hot W.—MELT.: 262°C . w. decomp.—ACTION: Stimulates the central nervous system.—USES: Encephalitis lethargica.—DOSE: *Intern.* & *subcut.*, 0.02–0.04 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.); *not* to be used intravenously.

"HARTSHORN"—see Ammonium Carbonate

HASASH, or HASCHISCH—see Hashish

Hashish

Hasish; Haschisch; Hasash; Kif.—Purified alcoh. extr. of *Cannabis indica*, Lam., *Urticaceae*, deprived of its volat. oil—CONSTIT.: Cannabinol.—USES: Sedat.; Antispasm.; Hypnot.; also as intoxicant by smoking.—DOSE: 0.06 Gm. (1 grn.), taken w. powd. coffee.

HASHISH—see Hashish

HATCHETT'S BROWN—see Copper Ferrocyanide, Cupric

Hayem's Solution—For Diluting Blood

1 Gm. NaCl , 5 Gm. Na_2SO_4 , 0.5 Gm. HgCl_2 , & 200 cc. W.—Used for dilut. blood in counting blood corpuscles.

HAYO—see Coca

HEAVY SPAR—see Barite

HEAVY SPAR, ARTIFICIAL—see Barium Sulphate

HEBRONITE—see Amblygonite

Hedeoma—B.P.C.

Pennyroyal; Squaw Mint.—Dried lvs & flowering tops of *Hedeoma pulegioides*, Persoon. Labiate.—HABIT.: Canada to Florida & west to Nebraska.—CONSTIT.: Volat. oil (1%); bitter prin.; tannin.—ACTION: Arom.; Stim.; Emmen.—USES: Flatul. colic, colds, asthma, hysteria, gout, & amenor.—DOSE: 4–8 Gm. (1–2 dr.).—Fl'dextr., 1–4 cc. (15–60 M).

Hedera Glucoside

"Helixin."— $\text{C}_{32}\text{H}_{52}\text{O}_{11} = 596.41$ (Vernet).—Glucoside fr. *Hedera Helix*, L. (Ivy).—Wh., cryst. powd.—SOL.: Eas. hot A.; insol. W., C.—Decomp. abt 235°C .

Hedonal

Methylpropylcarbinolurethane.— $\text{O}(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CO})_2\text{NH}_2 = 131.14$.—Wh. cryst. powd.; faint arom. odor & taste.—SOL.: Eas. A., C., E.; in 120 W. at 37°C ., but more solub. in hot W.—MELT.: 74°C .—BOIL.: Abt 215°C .—ACTION: Hypnotic.—USES: Melancholia, ma-

nia, delirium tremens, chron. alcoholism; also prior to C. anesthesia, 2 Gm. (30 grn.) 1 hr. bef. narcosis.—DOSE: 1–2 Gm. (15–30 grn.).—INCOMPAT.: Alkalies & carbonates.

Hegonon

Silver Nitrate Ammonio-albumose.—Light-brown powd.; 7% organically comb'd Ag.—SOL.: 10 W.—USES: Gonorrh., in 0.25% solut.; f. irrigations, 1:6000–2000 solut.

Heidenhain's Hematoxylin

Aqu. 1% solut. hematoxylin (use freshly made; solut. soon spoils).—USES: Stain. histolog. specimens.

Hektin

Sodium Benzenesulphoparaminophenylarsinate.—Wh. cryst.—SOL.: Eas. W.—ACTION: Antisyph.—USES: Inst. of atoxyl; stated less toxic than latter.—DOSE: 0.2 Gm. (3 grn.) p.d. subcut.

HELCSOL—see Bismuth Pyrogallate

Helenin Merck

Alantolactone; Inula, or Elecampane, or Alant. Camphor; Alantacid Anhydride.— $\text{C}_{15}\text{H}_{20}\text{O}_2 = 232.24$.—A stearopten fr. root *Inula Helenium*, L.—Wh., cryst.—SOL.: Eas. A., B., C., E., oils; alm. insol. W.—MELT.: 70° – 72°C .—ACTION: Antiseptic; Expector.; & Antispasm.—USES: *Intern.*, phth., diar., Asiatic chol., bronch., whoop.-cough, leucor. w. endometr. & catar. affect.—*Extern.*, surg. appl. in injuries, ulc., diphth., &c. in 2% oily solution.—DOSE: 0.01–0.02 Gm. ($\frac{1}{2}$ – $\frac{1}{2}$ grn.) 5–10 t.p.d., in pills; or better, 0.1 Gm. ($\frac{1}{2}$ grn.) ev. 2 hrs.

Helianthemum—N.F. IV

Frostwort.—Herb of *Helianthemum canadense*, Michaux, Cistaceae.—HABIT.: U. S. (Maine to North Carolina & Kentucky, west to Wisconsin).—CONSTIT.: Tannin; wax; fixed & volat. oils; crystalline principle.—ACTION: Astring.; Tonic; Alter.—USES: Scrofula, dysent. & secondary syphil.—*Extern.*, in scarlatina & prurigo.—DOSE: Aver., 4 Gm. (1 dr.).—Fl'dextr., 2–8 cc. (30–120 M).

HELIANTHINE—see Methyl Orange

HELIANTHINE PAPER—see Methyl Orange Paper

Helianthus

Sunflower.—Flowers & seeds of *Helianthus annuus*, L., Compositae, Synanthreae.—HABIT.: Cultiv. everywhere.—CONSTIT.: *Flowers*: Fixed oil; balsam.—*Seeds*: Fixed oil; helianthic acid; tannin.—USES: *Flowers*: Domestic remedy.—*Seeds*: Expector. & Diuret. in coughs, bronch. affect., & febrile condit.—*Techn.*, as source of sunflower-seed oil.—DOSE: *Flowers*, 1–2 Gm. (15–30 grn.).—*Seeds*: Fl'dextr., 2–4 cc. (30–60 M).

Helicin—Fr. Salicin

Glycosalicylic Aldehyde.— $\text{C}_6\text{H}_{11}\text{O}_5 \cdot \text{O} \cdot \text{C}_6\text{H}_4 \cdot \text{CHO} + \frac{3}{4} \text{H}_2\text{O} = 297.71$.—Wh. to silty reddish cryst. powd.—SOL.: W., A.; insol. E.—MELT.: 175°C .

HELICON—see Acid Acetylsalicylic

Heliotropin Merck

Piperonal; Piperonyl Aldehyde; Methylene Ether of Protocatechuic Aldehyde.— $\text{CH}_2\text{OO}-\text{C}_6\text{H}_3\text{COH} = 150.09$.—Fr. potass. piperate by KMnO_4 .—Wh. cryst.—SOL.: Sltly in W.; v. eas. A., E.—MELT.: Abt 37°C .—BOIL.: 263°C .—ACTION: Antisep.; Antipyr.—USES: Fevers, skin dis.—*Extern.*, alcoh. solut. as wash in surg. practice.—*Techn.*, as perfume; also as test f. sesame oil (Breinl), naphthol camphorated (Thiery).—DOSE: 1 Gm. (15 grn.) ev. 2 or 3 hrs.—CAUT.: Keep in cool, dark place; in hot climates, best in alcoh. solut.

Helium

He = 4.00; disc. by Ramsay in 1895 in Cleveite; most important source is natural gas.—Colorl., odorl., noninflam. gas.—SOL.: Sltly W. (abt 1.5% by vol., abt 0.026% by wt).—SP. GR.: 1.99 if H = 1; 0.137 if air = 1.—BOIL.: -268.75°C .—USES: Inst. of H for balloons & airships; in electric lamps.

"HELIXIN"—see *Hedera Glucoside*

HELLEBORE, AMERICAN, or GREEN—see *Veratrum Viride*

Hellebore, Black—B.P.C.

Christmas Flower, or Rose; Winter Rose; Black Bear's Foot.—Rhizome of *Helleborus niger*, L., Ranunculaceae.—HABIT.: Europe.—CONSTIT.: Volat. oil; helleborin & helleborein (glucosides); helleboretin; resin; fat.—ACTION: Cardiac Tonic; Hydragogue Cath.; Emmen.; Alter.—USES: Dropsy, amenorrh., epilepsy, &c., & in constip.—DOSES: 0.3–1 Gm. (5–15 grn.).—Alcoh. extr., 0.03–0.1 Gm. ($\frac{1}{2}$ – $1\frac{1}{2}$ grn.), alter.; 0.2–0.6 Gm. (3–10 grn.) cath. & emmen.—Fl'dextr., 0.3–0.6 cc. (5–10 M), alter.; 2–4 cc. (30–60 M), cath. & emmen.—Tr. (1:8), 1–4 cc. (15–60 M).—CAUT.: Poison!

do. White—B.P.C.

White *Veratrum*; Lingwort; Sneezewort.—Rhizome of *Veratrum album*, L., Liliaceae.—HABIT.: Europe; northern Asia.—CONSTIT.: Jervine; veratrine (cevadine); pseudojervine; rubijervine; veratralbine; protoveratrine; protoveratridine; jervic acid; veratroidine.—ACTION: Antipyr.; Emet.; Diaph.; Errhine; Sternut.—USES: *Intern.*, arteriosclerosis, chron. nephritis.—*Extern.*, as insecticide.—*Techn.*, f. killing insects on plants, & also rats, mice, &c.—DOSE: 0.06–0.3 Gm. (1–5 grn.), begin. w. a small dose & caut. increas.—VETER. MED. as emet. & in distemper in dogs; cattle up to 20 Gm. (5 dr.); sheep, up to 5 Gm. (75 grn.); dogs, accord. to size, 0.01–0.3 Gm. ($\frac{1}{8}$ –5 grn.).

HELLEBORE, FALSE—see *Adonis Vernalis*

Helleborein

$\text{C}_{37}\text{H}_{56}\text{O}_{13} = 788.63$.—Glucoside fr. rhizome *Helleborus niger*, L., & *H. viridis*, L.—Yellowish powd.—SOL.: Eas. W., A.; insol. E.—ACTION: Heart Stim. & Local Anesth.—USES: *Intern.*, inst. of digitalis.—*Extern.*, in conjunctival sac 3 or 4 drops of a 1:125 solut. give compl. anesth., without irrit., & lasting $\frac{1}{2}$ hr.—DOSE: 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.) 4–5 t.p.d.—Causes diarrhea.—MAX. DOSE: 0.03 Gm. ($\frac{1}{2}$

grn.) single, 0.12 Gm. (2 grn.) p. day.—ANTID.: Emetics, stomach siphon, tannin, brandy hypoderm., extern. stimul. w. heat, mustard, etc.—CAUT.: Poison!

Helleborin

($\text{C}_8\text{H}_{10}\text{O}$) $_x$.—Glucoside fr. *Helleborus viridis*, L., & *H. niger*, L.—Colorl., lustr. cryst.—SOL.: Eas. boil. A., & C.; sltly E.; insol. W.—MELT.: Above 250°C .—ACTION: Narcotic; without digitalis-like action.—ANTID.: As of helleborein.

HELMET FLOWER—see *Scutellaria*

Helminal—Tablets, 0.25 Gm. Each

A dry, brown extract prep'd fr. a sea alga, a species of *Digenea* (Rhodamelaceae).—ACTION: Anthelmintic.—USES: Inst. of santonin, to expel round worms in adults & children, & even in infants. Is said to give rise to no unpleasant by-effects.—DOSE: Adults, 3 tabl., & older children 2 tabl., 3 t.p.d.; infants & young children 1–2 tabl. 3 t.p.d., crushed & given in some jam or gruel. These doses should be given for 3 consecutive days, & the bowels should be kept open.

Helmitol

Hexamethylenamine Anhydromethylenecitrate; Formanol (B.P.C.); New Urotropin; Uropurgol.— $\text{C}_7\text{H}_{10}\text{O}_7 \cdot (\text{CH}_2)_6\text{N}_4 = 344.26$.—Colorl. cryst. powd.—SOL.: Abt 10 W.; alm. insol. A., E.; decomp. by acids & alkalis w. liberation of formaldehyde.—MELT.: Abt 163°C , w. decomp.—ACTION: Urinary Disinfect. & Antisep.; Diur.—USES: Acute & chron. cystitis, urethritis, pyelitis, & bacteriuria.—DOSE: 0.6–1 Gm. (10–15 grn.) 3–4 t.p.d.—INCOMPAT.: Acids, alkalis, hot W.; (prep. soluts. w. cold W. only).

Helonias—N.F. V

False Unicorn; Blazing Star; Starwort.—Rhizome & roots of *Chamaelirium luteum*, Gray, Liliaceae.—HABIT.: Ontario & eastern U. S.—CONSTIT.: Chamelirin.—ACTION: Tenifuge; Tonic; Diuret.; large doses Emetic.—DOSE: Aver., 2 Gm. (30 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

Helonin

Concentration fr. rhizome of *Chamaelirium luteum*, Gray.—SOL.: A.—ACTION: Diuret.; Tonic; Anthelm.—USES: Dropsy, dyspepsia, atony of gen.-urin. organs, & worms.—DOSE: 0.06–0.3 Gm. (1–5 grn.) in pills.

Hemalum—Dry

Brownish, cryst. powd.—SOL.: W.—USES: In aqu. solut. as stain in microscop.—This dry prep. keeps better than the ordinary aluminohematoxylin soluts.

Hematein

$\text{C}_{16}\text{H}_{12}\text{O}_6 = 300.18$.—Fr. hematoxylin or logwood extr. & NH_3 by expos. to air.—Reddish-brown plates; yellowish-green, metal. luster.—SOL.: 1670 W. at 20°C ; diffic. A., E.; insol. B., C.; eas. sol. in NH_4OH w. brownish-violet color, & in dil. NaOH w. bright-red color.—USES: Indicator like hematoxylin; stain'g animal tissue, partic. cell nuclei; also as test f. Pb (Moffat).

Hematin

Oxyhematin; Hematosin.— $C_{32}H_{32}N_4FeO_4$ (Nencki) = 592.29.—Fr. oxyhemoglobin by acids.—Bluish-black, amorph. powd.; amm. solut. red.—SOL.: Alkalies, insol. A., E., C., W.—USES: Test f. milk (Gaucher).

Hematite—Mineral

Red Ferric Oxide; Reddle; Bloodstone (the name "bloodstone" also given to a semiprecious mineral cont. jasper, & us'ly known as "heliotrope"); Iron Glance, Red Iron Stone.—Iron ore consist. of Fe_2O_3 w. lime, quartz, & clay.—OCCUR.: Wide distribution in rocks of all ages.—COMPOS.: Fe_2O_3 .—CRYST. SYST.: Hexag. rhomboh.—LUSTER: Metal. to earthy; somet. resplendent.—COLOR: Steel gray to black, reddish-black, & red.—STREAK: Bright-red to reddish-brown.—FRACT.: Uneven.—HARDN.: 5.5–6.5.—SP. GR.: 4.9–5.3; of cryst., 5.20–5.25; of compact var. as low as 4.2.—USES: Source of metal iron; in powd. form as polishing powd. & putz-pomade, f. metals, &c.; & as a lithographic crayon. Red iron stone, a microcryst. variety used as polish & abrasive.

HEMATOIDIN—see Bilirubin

HEMATOSIN—see Hematin

Hematoxylin

$C_{16}H_{14}O_6 = 3H_2O = 336.24$.—Chromogen fr. heart-wood *Hæmatoxylin campechianum*, L. (logwood).—Colorl. to yellowish-brown cryst.; redden on expos. to light.—SOL.: A., E., borax solut., NH_4OH , G., caustic alkalies; sltly cold, eas. hot, W.—Solut. darken on standing.—USES: As a color'g agent, partic. in microscopy.

Hematoxylin Paper

Unsize, wh. paper free fr. lime, & impregnated w. hematoxylin.—USES: Delicate indicator for NH_3 , alkalies, alkali earths, & certain metals (alkalies = violet; acids = yellow).—CAUT.: Keep well sealed, in amber bots.

Hematoxylon—N.F. V; B.P.

Logwood.—Heart-wood of *Hæmatoxylon campechianum*, L., Leguminosæ.—HABIT.: Central America; natur. in West Indies, Jamaica, St. Domingo.—CONSTIT.: Volat. oil; hematoxylin (abt 10%, B.P.C.); tannin; fat; resin.—ACTION: Astring.; Tonic.—USES: Chron. diar., dysen., & intest. atony.—*Techn.*, as dye; also as indicator (in form of tinct. or decoct.; alkalies = blue, acids = red). Partic. sensitive to NH_3 .—DOSES: 2–4 Gm. (30–60 grn.); aver. dose 2 Gm. (30 grn.).—Extr., 0.5–1.3 Gm. (8–20 grn.).

Hemialbumose

Product intermediate between albumin & peptone, & obt'd accord. to Kühne, by digest'g albumin w. pepsin, & then continuing digestion until product is converted into hemipeptone.—Yellowish powd.—SOL.: Dil. acids & alkalies.

Hemidesmus—B.P.C.

Indian Sarsaparilla; Dudha; Nannari; Uper-sara; Sogadé.—Root of *Hemidesmus indicus*, R. Br., Asclepiadaceæ.—HABIT.: India; Ceylon.

—CONSTIT.: Unknown, but as the odor of the root resembles that of tonka bean, it is supposed to be due to presence of coumarin or an allied substce.—ACTION: Antisyph.—USES: As antisyphilitic inst. of sarsaparilla.—DOSE: 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.) of 1:10 decoct. sev'l t.p.d.

HEMIMORPHITE—see Calamine

HEMISINE—see Ephinephrine

HEMLOCK—see Conium Fruit

Hemlock Spruce Bark—B.P.C.

Obt'd fr. *Tsuga canadensis*, Carr (Pinus canadensis, L.), Coniferae.—HABIT.: North America.—CONSTIT.: Chiefly tannin (8%–15%); resin; vol. oil.—ACTION: Astringent.—USES: *Intern.*, in diarrh. & catarrhal dis. of mucous membranes; *extern.*, as inj. in leucorrhea & gonorrh.—DOSE: Liq. Extr. (1:1) 1–4 cc. (15–60 M).—APPL.: Liq. Extr. 1 w. 10 W. as inj. in gonorrh. & leucorrhea.

Hemogallol

Hemoglobin Deoxidized by Pyrogallol, Merck.—Fr. hemoglobin (the color'g matter of defibrinated blood) by reduct'n w. pyrogallol. (Discovered by Kobert).—Reddish-brown, alm. tastel. powd. cont'g abt 6.2% iron in condit. f. easy assimil'n.—Insol. A., W.—ACTION: Hematinic, Constructive, Tonic.—USES: Anemia, chlorosis, chron. nephritis, diabetes, & in convalesc.; readily transformed into blood-coloring matter in debility, & superior to inorg. prep. of iron; generally well borne, & partic. suitable f. children.—DOSE: 0.25–0.5 Gm. (4–8 grn.) 3 t.p.d., $\frac{1}{2}$ hr bef. meals in powd. w. sugar, or in tablets; children, 0.06–0.2 Gm. (1–3 grn.), accord. to age.

do. —Tablets, 0.25 Gm. Each

Hemoglobin Merck—Powder or Scales

Red color. matter of blood.—Brownish-red powd., or scales.—SOL.: W.; slowly in G.—ACTION: Hematinic; readily absorbable Constructive; Tonic.—USES: Anemia, tubercul., chlorosis, &c.—DOSE: 1.3–2.6 Gm. (20–40 grn.) 3–4 t.p.d. in wine or syrup.

Hemol

Hemoglobin Deoxidized by Zinc, Merck.—Fr. hemoglobin by reduct. w. zinc-dust.—Dark-brown, alm. tastel. powd. cont'g abt 3% eas. assimil. Fe w. slt traces of ZnO.—SOL.: Partially in W.—ACTION: Hematinic; Antichlorotic.—USES: Anemia, chlorosis, neurasthenia; of great utility in treatm. of debil.; readily absorbed.—DOSE: 0.12–0.5 Gm. (2–8 grn.) bef. meals, in powd., w. sugar, or in wafers.

HEMOL, IODIZED—see Iodohemol

HEMP; AMERICAN INDIAN, CANADIAN, or BLACK INDIAN—see Apocynum

HEMP, INDIAN—see Cannabis

HEMP; INDIAN, WHITE—see Asclepias Incarnata

HEMP RESIN—see Cannabinon

Hemp Seed

Fruit of *Cannabis sativa*, L., Moraceæ.—HABIT.: Asia; now widely cultiv. (N. America,

Europe, Brazil, &c.).—**CONSTIT.**: Fixed oil; resin.—**USES**: Emuls. (1:10) of seeds used in gonorr. Chiefly used as bird food.

HENBANE—see *Hyoscyamus*

Henna

Egyptian Privet; Flower-of-Paradise.—**Lvs** of *Lawsonia alba*, Lamarck, Lythraceæ.—**HABIT.**: Orient; Mediterranean region; southern Asia; Australia.—**CONSTIT.**: Tannin; color. matter.—**ACTION**: Diuret.; Astring.—**USES**: Jaundice & skin dis.—*Extern.*, as an "Oriental cosmetic" f. dyeing finger nails, hands, feet, & hair.—*Techn.*, in combin. w. indigo, as hair dye; also dyeing leather & silk.

Henneguy's Acetic Alum Carmine

Boil 2–3 Gm. carmine w. 100 cc. 15% aqu. solut. potass. alum, & when cold, add 10 cc. acetic acid & let stand a few days before using.—**USES**: Stain. tissues & cell nuclei.

HEPAR ANTIMONY—see Antimony Oxide Brown; Potassium & Antimony Sulphurated; Sodium & Antimony Sulphurated

HEPAR CALCIS—see Calcium Sulphide, Crude

HEPAR SULPHURIS—see Potassa Sulphurated

Hepatica

Liverwort; Liverleaf; Noble Liverwort; Kidney Liverleaf.—Whole plant *Hepatica Hepatica* (triloba), Karst., Ranunculaceæ.—**HABIT.**: Europe.—**CONSTIT.**: Tannin; oleoresin.—**ACTION**: Tonic; Astring.—**USES**: Supposed to be of benefit in hepatic affect.—**DOSE**: Fl'dextr., 2–4 cc. (30–60 M).

Heptane

Heptyl Hydride; Methyl Hexane; Normal Heptane; Dipropylmethane.— $\text{CH}_3(\text{CH}_2)_5\text{CH}_3$ = 100.16.—Hydrocarbon fr. petroleum.—**Volat.**, colorl. inflam. liq.—**Misc.**: A., C., E.—**Sp. Gr.**: 0.684 at 20° C.—**Boil.**: Abt 98° C.—**Anesth.**; Solvent.—**CAUT.**: Eas. inflam.

HEPTANOL—see Alcohol Heptylic

HEPTANON—see Dipropylketone

HEPTYL HYDRIDE—see Heptane

HERAPATHITE—see Quinine Iodosulphate

HERBA BOTRYOS MEXICANÆ—see *Chenopodium*

HEROIN—see Diacetylmorphine

Hertwig's Osmic-Acetic Acid

(1) 0.05 Gm. OsO_4 , 0.2 Gm. acetic acid, & 200 cc. W.—(2) 15 cc. glac. acetic acid, 50 cc. formaldehyde, 150 cc. 1% chromic acid solut., 150 cc. sat. aqu. solut. HgCl_2 , & 135 cc. W.—**USES**: Hardening microscopic specimens.

HERZBERG'S PAPER—see Congo Red Paper

Hesperetin

$\text{C}_6\text{H}_3(\text{OCH}_3)(\text{OH})\cdot\text{CH}:\text{CH}\cdot\text{CO}_2\cdot\text{C}_6\text{H}_3(\text{OH})_2$ = 302.19.—Cleavage product of hesperidin.—Yellow cryst. powd.—**SOL.**: A., E.; diffic. B., C.; sltly W.—**MELT.**: 226° C., w. decomp.

Hesperidin

$\text{C}_{22}\text{H}_{26}\text{O}_{12}$ = 482.32.—Glucoside fr. unripe fruit, *Citrus Aurantium*, Risso (Bitter orange).—Yellow pieces or powd.—**SOL.**: Eas. dil. alkalies; hot acetic acid; sltly A.—**MELT.**: 251° C., w. decomp.

Heulandite—Mineral

OCCUR.: Iceland; Brit. India; Scotland; U. S.; Nova Scotia.—**COMPOS.**: $(\text{SiO}_3)_6\text{Al}(\text{CaSr})\text{H}_4\cdot 3\text{H}_2\text{O}$.—**CRYST. SYST.**: Monosym.—**LUSTER**: Vitr.; nearly on cleavage face.—**COLOR**: Wh.; also yellow, brown, & red.—**STREAK**: Wh.—**CLEAV.**: Perfect clinopinacoidal.—Brittle, transp. to transluc.—**HARD.**: 3.5–4.—**SP GR.**: 2.18–2.22.

HEXACHLOROBENZENE (or, -ZOL)—see Perchlorbenzene

α-HEXACHLORCYCLOHEXENE—see Benzene Hexachloride

HEXACHLORETHANE—see Carbon Trichloride

HEXAHYDROPIRAZINE—see Piperazine

HEXAHYDROPYRIDINE—see Piperidine

HEXAHYDROTHYMOL—see Menthol

HEXAL—see Hexalet

Hexalet

Hexamethylenamine Salicylsulphonic Acid, or Sulphosalicylate; Hexal.— $(\text{CH}_2)_6\text{N}_4\cdot\text{C}_6\text{H}_3(\text{OH})(\text{COOH})\text{HSO}_3 + \text{H}_2\text{O} = 376.32$.—Wh., odorl., cryst. powd.—**SOL.**: Abt 8 W.; sltly A., diffic. E.—**ACTION**: Urinary Antisep.—**USES**: As of hexamethylenamine; acute & chron. cystitis, gonorrheal urethritis, pyelitis, pyelonephritis, uric-acid diathesis, etc.—**DOSE**: 1 Gm. (15 grn.) 3–6 t.p.d.

HEXAMETHYLENAMINE—see Formin; Methenamine

HEXAMETHYLENAMINE ANHYDROMETHYLENICITRATE—see Helmitol

HEXAMETHYLENAMINE BROMETHYLATE—see Bromalin

HEXAMETHYLENAMINE CAMPHORATE—see Amphotropin

HEXAMETHYLENAMINE LITHIUM BENZOATE—see Urystamine

HEXAMETHYLENAMINE SALICYLATE—see Saliformin

HEXAMETHYLENAMINE SALICYLSULPHONIC ACID, or SULPHOSALICYLATE—see Hexalet

HEXAMETHYLENAMINE SULPHOSALICYLATE, SECONDARY—see Neohexal

HEXAMETHYLENAMINE TETRAIODIDE—see Sioimine

HEXAMETHYLENETETRAMINE—see Formin; Methenamine

HEXAMETHYLPARAROSANILINE HYDROCHLORIDE—see Crystal Violet; Pyoktanin Blue

HEXAMINE—see Formin; Methenamine

Hexamminecobalt Chloride

Luteocobaltic Chloride.— $(\text{Co}(\text{NH}_3)_6)\text{Cl}_3 = 267.54$.—Wine-red or brownish-orange-red monoclin. cryst.—**SOL.**: W.; on long boil. w. W. NH_4OH evolved & $\text{Co}(\text{OH})_3$ pptd.—**USES**: Test for pyrophosphoric acid.

Hexane—Normal

$\text{CH}_3(\text{CH}_2)_4\text{CH}_3 = 86.14$.—Chief constituent of petrol. E., or lignoin.—**Colorl.**, volat. liq.; faint, pecul. odor.—**SOL.**: A., C., E.—**Sp. Gr.**: 0.658 at 20° C.—**BOIL.**: 65°–70° C.—**USES**: Determ. refract. index of minerals; filling f. thermometer tubes.—**CAUT.**: Eas. inflam.

HEXANEDIACID—see Acid Adipic

HEXA OXYANTHRAQUINONE—see Acid Rufigallic

HEXA OXYHEXA HYDROBENZENE—see Inosit

HEXETON—see Homocamfin

Hexophan

Oxyphenylquinolinedicarboxylic Acid.— $\text{C}_{17}\text{H}_{11}\text{NO}_5 + \text{H}_2\text{O} = 327.20$.—Yellow, odorl. powd.—**SOL.**: Eas. NH_4OH & solut. NaOH ; alm. insol. W., A., E.—**ACTION**: Antipodagric.—**USES**: Gout, uric acid diathesis.—**DOSE**: 1 Gm. (15 grn.) 3–4 t.p.d.

Hexyl Iodide—Secondary, Normal

$\text{C}_6\text{H}_{13}\text{I} = 212.05$.—Fr. mannite & HI by dist'n.—**Colorl.**, unstable liq.; readily bec. brown.—**Sp. Gr.**: 1.453 at 15° C.—**BOIL.**: 168° C.

HEXYLENEGLYCOL—see Pinacone

HEXYLRESORCINOL—see Caprokol

Hielmite—Mineral

Hjelmite.—**OCCUR.**: Falem, Sweden.—**COMPOS.**: Chiefly pyrotantalate or niobate of Ca, Fe, & Mn, w. sm. quant. U, Wo, Sn, etc.—**CRYST. SYST.**: Rhomb.—**COLOR**: Pure black.—**Sp. Gr.**: 5.82.—**USES**: Source of tantallic acid.

HIGH BUSH CRANBERRY—see Viburnum Opulus

HIPPO—see Ipecac

HIPPOCASTANUM—see Aesculus Hippocastanum

HIPS—see Rose, Dog

Hirudin

Principle prevent'g blood coagulation, & obt'd fr. the heads of leeches.—Brownish, dry scales or bulky masses.—**SOL.**: v. eas. W.; insol. A., E.—**USES**: To prevent blood coagul. in gynecol., &c.; 0.001 Gm. ($\frac{1}{80}$ grn.) suffices to permanently prevent 8 cc. (2 fl. dr.) of blood fr. coagul'g, & without changing its character.—For use a solut. of 0.01 Gm. ($\frac{1}{80}$ grn.) in 2 cc. (30 M) dist. W. or 0.8% NaCl solut. is prepared.

Histamine Hydrochloride

Imido; β -Iminazolyethylamine Hydrochloride.— $\text{CH}(\text{NH}) : \text{C}(\text{N}.\text{CH}).\text{CH}_2.\text{CH}_2.\text{NH}_2.\text{HCl} = 147.59$.—Base is found in var. putrefying proteins, & in ergot; also prep. synthet.—**ACTION**: Uterine stimulant; powerful contractile action on unstriated muscular fibers; strong Vasoconstrictor.—**USES**: Standardizing pituitary & similar prep'ns; postpart. hemorrh. —Mktd in ampuls cont'g ea. 1.1 cc. (1 cc. = 1 Mgm. substece).

HJELMITE—see Hielmite

HOARHOUND—see Horehound

HOFFMANN'S ANODYNE—see Spirit Ether Compound

HOFFMANN'S DROPS—see Spirit Ether

Hofmann's Violet

Dahlia Violet; Triethylrosaniline Hydrochloride (or homologues).— $\text{C}_{26}\text{H}_{32}\text{N}_3\text{Cl} = 421.87$.—Green lumps.—**SOL.**: W.—**USES**: To dye wool, silk, & tanned cotton bluish-red.—Also for inks & stains. In alcoh. solut. acidul. w. acetic acid as stain for cylinders of nerve fibers, & as test paper.

HOG BEAN—see Hyoscyamus

HOG GUM—see Tragacanth

HOGWEED—see Scoparius

Holadin

Extract of entire pancreatic gland.—Grayish-wh., somewh. hygrosc. powd.—**SOL.**: W. (freely but not compl.).—**ACTION**: Starch Digestant; Lipolytic.—**USES**: Imperfect digestion.—**DOSE**: 0.2 Gm. (3 grn.) incr. to 0.36–0.6 Gm. (6–10 grn.) 3 hrs aft. meals & at bed time.

HOLLY, GROUND—see Chimaphila

HOLOCAINE HYDROCHLORIDE—see Phenacaine

Homatropine Merck—Alkaloid—Pure

Oxytoluyltropine. — $\text{C}_8\text{H}_{14}\text{N}.\text{O}.\text{CO}.\text{CHOH}.\text{C}_6\text{H}_5 = 275.26$.—Synthetic alkaloid fr. tropine & mandelic acid.—Wh. cryst.—**SOL.**: A., B., C., E., acetone, dil. acids; sltly in W.—**MELT.**: 96°–98° C.—**ACTION**: Sedat.; Antispasmodic; Anod.; Antihidrotic.—**USES**: As of atropine, but less toxic. Salts exceed. useful in ophthalmology; dilate pupil powerfully, & effect subsides quicker than w. atropine; hydrobromide us'y used.—**DOSE**: 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{80}$ grn.) sev'l t.p.d.—**ANTID.**: Emetics, then castor oil; stomach siphon; tannin & animal charcoal; artificial respir., heat, stim., &c.—**CAUT.**: Keep well stoppered.

Homatropine Hydrobromide Merck—U.S.P. X

$\text{C}_{16}\text{H}_{21}\text{NO}_3.\text{HBr} = 356.18$.—Wh., cryst. powd.—**SOL.**: 6 W., 40 A., 420 C. at 25° C., also in 12 A. at 60° C., & insol. in E., U.S.P.—**MELT.**: Abt 212° C. w. part. decomp., U.S.P.—**ACTION**: Mydriatic.—**USES**: In ophthal. surg.; in night sweats of phth., & as sed. Mydr. effect commences in $\frac{1}{4}$ – $\frac{1}{2}$ hr, reaches max. in 1 hr, & disappears in 5–6 hrs. Accommod. paresis ceases earlier.—**DOSE**: Aver., 0.0005 Gm. ($\frac{1}{120}$ grn.); 0.001–0.002 Gm. ($\frac{1}{80}$ – $\frac{1}{30}$ grn.), B.P.; 0.0008–0.003 Gm. ($\frac{1}{80}$ – $\frac{1}{20}$ grn.), B.P.C., Sq.—**MAX. D.**: 0.001 Gm. ($\frac{1}{80}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) p.d.—**APPL.**: To eye, in a 1% solut. When a 1:60 solut. is used as a cycloplegic, mydriasis & paresis of accommod'n last longer than when only enough solut. is used to produce simple mydriasis.—**ANTID.**: As of homatropine.

Homatropine Hydrochloride Merck

$C_{16}H_{21}NO_3 \cdot HCl = 311.72$.—Sm., wh. cryst.—
SOL.: Eas. W., A.—MELT.: Abt 220° C.—USES
& DOSES: As of the hydrobromide.

Homatropine Methylbromide

Novatropine.— $C_{16}H_{21}NO_3 \cdot CH_3Br = 370.21$.
—Wh. cryst.—SOL.: Eas. W. & dil. A.; diffic.
cold and absol. A.; insol. E.—MELT.: 180°–
181° C.—USES: As of atropine methylbromide.

Homatropine Salicylate

$C_{16}H_{21}NO_3 \cdot C_7H_5O_3 = 413.34$.—Wh. cryst.—
SOL.: Eas. W., A.—USES & DOSES: As of the
hydrobromide.

Homatropine Sulphate Merck—Cryst.

$(C_{16}H_{21}NO_3)_2 \cdot H_2SO_4 = 648.59$.—Wh. cryst.—
SOL.: Eas. W., A.—MELT.: Abt 223° C.—USES
& DOSES: As of the hydrobromide.

Homöorecoline Hydrobromide

Arecadinethylester Hydrobromide.—
 $C_9H_{15}NO_2 \cdot HBr = 250.10$.—Colorl. cryst.—
SOL.: Eas. W., A.—MELT.: 118°–119° C.—
ACTION: Like that of arecoline, but is stated to
be less toxic.

Homocamfin

Cyclosal; Hexeton; 3. Methyl-5. isopropyl-2-
cyclohexenone.— $CH_3 \cdot \dot{C} : CH \cdot CO \cdot CH_2 \cdot CH \cdot$
 $(CH[CH_3]_2) \cdot CH = 152.18$ (in aq. solut. sod.
salicylate).—Methylisopropylhexenone itself oc-
curs as a light yellowish, bitter oil.—SOL.: A.,
B., E.; sltly in W. (an aq. solut. of 100 cc.
cont'g 10 Gm. of the oil & 25 Gm. sod. salicyl
is clear at 25° C.).—BOIL.: 127°–128° C. at 18
mm.—ACTION: Similar to that of camphor,
but action on heart & respir'n more intense &
rapid.—USES: Cardiac failure, surg. shock
narcot. poisoning, & respir. failure.—DOSE:
Adults, 1.5–2 cc. (23–30 M) of 10% solut.;
childr. 2–12 yrs old, 0.5–1 cc. (8–15 M).

HOMOGUAIACOL—see Creosol

HOMOLLE'S DIGITALIN—see Digitalin "French"

HOMOPROCATACHOLMONOMETHYL ESTER — see
Creosol

HONDURAS BARK—see Cascara Amarga

HONEY PLANT—see Melissa

HONEY SUGAR—see Dextrose

Hops—N.F. V; B.P.C.

Carefully dried strobiles of *Humulus Lupulus*,
L., Moraceæ, bearing their glandular trichomes.
—HABIT.: Europe; Asia; North America; cul-
tivated widely.—CONSTIT.: Volat. oil (0.3%–
1%, B.P.C.); asparagin; choline, hop-bitter
acid; soft & hard hop-resins; tannin.—ACTION:
Antispasm.; Tonic; Diuret.; Sedat.; Anodyne;
Hypnot.; Carminat.; Diaphor.—USES: Insom.,
dyspep., irrit. bladder & inflam. of genito-urin.
organs, gen. debility, nervous tremor.—*Techn.*,
in beer brewing.—DOSE: 2–4 Gm. (30–60
grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr.,
0.12–0.3 Gm. (2–5 grn.).—Aq. extr., 0.25–

0.6 Gm. (4–10 grn.).—Fl'dextr., 2–4 cc. (30–
60 M).—Tr., 4–12 cc. (1–3 fl. dr.).

Hordenine Sulphate

$(C_{10}H_{15}NO)_2 \cdot H_2SO_4 + H_2O = 446.45$.—Sulphate
of alkaloid (Paraoxyphenyldimethylethylamine)
fr. malt sprouts.—Colorl. cryst.—SOL.: Eas.
W.; v. sltly A.; insol. E.—MELT.: 208°–210°
C.—ACTION: Cardiac Tonic; Heightens blood
pressure, & strengthens & slows the pulse.—
USES: dysentery, typhoid, enterocolitis, gastro-
intest. disturbances, hypersecretion, etc.—
DOSE: 0.5–2 Gm. (8–30 grn.) p.d.; as cardiac
tonic, 0.5 Gm. (8 grn.) p.d. subcut. or intern.;
for diarrh. in childr. 0.05 Gm. ($\frac{3}{4}$ grn.) p.d.
for ea. year of age.—VETER. MED., in diarrh.
& dysentery in *dogs*, 0.03–0.04 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$
grn.) per kilo (abt 2 lb.) of body wt, subcut. in
5% solut.

Horehound—B.P.C.

Hoarhound.—Dried lvs & tops of *Marrubium*
vulgare, L., Labiatae.—HABIT.: Europe; Cen-
tral Asia; natur. in U. S.—CONSTIT.: Volat. oil;
marrubiin; tannin; resin; fat; wax; sugar.—
ACTION: Nerve; Vermif.; Bitter Stomachic;
Resolvent; Stim.; Tonic; Deobstruent; large
doses are Diuret.; Diaphor., & Laxat.—USES:
Colds, chron. lung affections, amenor., jaun-
dice, cardialgia, dyspep., &c.—DOSES: 1–4
Gm. (15–60 grn.).—Aq. extr., 0.2–0.6 Gm.
(3–10 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—
Infus. (1:20, B.P.C.), 30–60 cc. (1–2 fl. oz.).

Hormonal

Peristaltic hormone.—USES: Chron. constip.,
ileopostoperative & peritonitic intest. paresis.
—Supplied in 2 forms: (1) w. 0.5% eucaine hydro-
chlor. f. intramusc. inj. in chron. constip.;
(2) free fr. eucaine, f. intraven. inj. in intest.
paresis.—DOSE: 15 cc. (4 fl. dr.) of intramusc.
prep.

Hornblende—Mineral

Common Hornblende, or Amphibole.—OCCUR.:
A constituent of many minerals.—COMPOS.:
 $(SiO_3)_2(MgFe)_3Ca(SiO_3)_2$ w. $(SiO_3)_2(MgFe)_3$ -
 $Al_2(AlO_3)_2$.—CRYST. SYST.: Monosym.—COL-
OR: Dark green to black.—LUSTER: Often horn-
like.—USES: Manuf. asbestos articles.

HORSE BALM—see Collinsonia

HORSE-CHESTNUT—see Aesculus Hippocastanum

HORSE-HEAL—see Inula

HORSE NETTLE—see Solanum

HORSEMINT, AMERICAN—see Monarda

Horseradish—B.P.

Fresh root of *Cochlearia Armoracia*, L., Crucif-
eræ, collected fr. cultivated plants.—HABIT.:
Europe; cultivated & naturalized in U. S.—
CONSTIT.: Volat. oil; bitter resin; sugar; gum;
myrosine; glucoside sinigrin (potassium myro-
nate); starch.—ACTION: Rubef.; Alter.; Tonic;
Diuret.—USES: Rheumat., hoarseness, dropsy,
debil., &c.—DOSE: Fl'dextr., 0.6–2 cc. (10–30
M).—Comp. Spir., 4–8 cc. (60–120 M).

HORSEWEED—see Erigeron

Hoyer's Ammonium Carminate—Solution

2 Gm. carmine, & 100 cc. ammoniacal W., w. add'n of chloral hydrate.—**USES:** Staining nuclei, axis cylinders, & nerve cells.

do. Chloral-Acacia

Solut. acacia & chloral hydrate in a mixt. of W. & G.—**USES:** Preserving of carmine & hematoxylin specimens.

HUANUCO BARK—see Cinchona, Pale

Huber's Solution—Test for free Mineral Acids

Aqu. solut. ammonium molybdate & $K_4Fe(CN)_6$.—Free min. acids (H_3BO_3 & As_2O_3 excepted) afford w. the solut. a reddish-yellow to dark-brown ppt. or a turbid. which disappears on add'g an alkali.

Huebl's Solution

25 I & 30 HgCl₂ in 1000 90% A. Titer must be verified w. 0.1*N* Na₂S₂O₃ before or after use, as it changes with time.—**USES:** Determ. I-No. of fats & oils.

Hyclorite

Solut. chlorinated soda cont'g 4.05% sod. hypochlorite; corresponding to abt 3.85% available Cl.—**ACTION:** As of solut. chlorinated soda.—**USES:** In full strength or dil. w. 1–2 vols. W. as direct applic. to mucous membranes, muscular tissue, bone infect., etc.; in 1:1000–100 dilut. f. irrig. wounds, throat & body cavities; 1 hyclorite w. 7 W. f. irrigating infected wounds.

Hycol

Mixt. of high-boiling coal tar oils & cresols (abt 40%) saponified to render them emulsifiable w. W.—Phenol coefficient = 18–20 (original Rideal-Walker B. typhosus method).—Dark liq.; coal-tar odor.—**ACTION:** Powerful Disinf., Deodorant, & Bactericide.—1 Hycol + 300–400 W. affords a strong disinfectant.—**USES:** A solution of 2 tablespoonfuls to 1 pail (3 gals) water is suitable f. floors, general cleaning; railroad & trolley cars, stations, & barns; offices, schools, public buildings, hotels, factories, warehouses, ships, stables, etc.; 3 tablespoonfuls to 1 pail (3 gals) water for lavatories, sinks, insect breeding places, garbage, etc.; 3 tablespoonfuls to $\frac{1}{4}$ pail (3 quarts) water for drains, cesspools, etc.

HYDRACETIN—see Acetylphenylhydrazine

Hydrangea—N.F. V

Seven Barks.—Dried rhizome & roots of *Hydrangea arborescens*, L., Saxifragaceae.—**HABIT:** Eastern U. S.—**CONSTIT.**: Hydrangin (glucoside); sugar; saponin; resins; fixed & volatil. oils; starch.—**ACTION:** Diur., & Antilithic.—**USES:** Dropsy, lithiasis, & dis. of genito-urin. organs.—**DOSE:** Aver., 2 Gm. (30 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

Hydrastin (Resinoid)

Fr. rhizome & roots *Hydrastis canadensis*, L.—**SOL.**: A.—**ACTION:** Antiseptic; Alter.; Astring.; Tonic; Emmen.—**USES:** Gonorr., leucorr., constip., amenorr., catarrh, uter. hemorrhage, piles, &c.—**DOSE:** 0.3–0.6 Gm. (5–10 grn.).

Hydrastine Merck—Alkaloid—U.S.P. IX

$C_{21}H_{21}NO_6$ = 383.28.—Alkaloid fr. root of *Hydrastis canadensis*, L., or prep. synthet.—**WH.** prisms or microcryst. powd.—**SOL.**: 170 A., 1.4 C., 175 E. at 25° C., in 22 A. at 60° C., & freely in B., U.S.P. IX.—**MELT.**: Abt 131° C.—**ACTION:** Alter.; Tonic; Antiper.—**USES:** Intern., typhoid conditions, intermittent fever, dyspep., colliquative sweats, gonorr., leucorr., constip., & uterine hemorrh.—**Extern.**, in 15%–20% oint. in hemorrhoids, skin dis., etc.—**DOSE:** 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose 0.01 Gm. ($\frac{1}{8}$ grn.); 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.), B.P.C.—**MAX. D.**: 0.1 Gm. ($\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) p. d.

Hydrastine Bitartrate

$C_{21}H_{21}NO_6 \cdot C_4H_6O_6 + 4H_2O$ = 605.41.—Small, wh., cryst.—**SOL.**: Eas. hot, more diffic. cold, W.—**USES:** As a means of obtaining pure hydrastine.

Hydrastine Hydrochloride Merck—N.F. V

$C_{21}H_{21}NO_6 \cdot HCl$ = 419.75.—Wh., to creamy wh., odorl., hygrosc. powd.—**SOL.**: Eas. W., A., sltly C., & v. sltly E.—**ACTION:** Astring.; Alter.; Tonic; Hemost.—**USES:** Intern., uter. hemorrh., to produce premature labor, in dyspep., piles, &c.—**Extern.**, gonorr., conjunct., endometr., leucorr., cervical erosions, acne, hyperidrosis, seborr., &c.—**DOSE:** 0.008–0.06 Gm. ($\frac{1}{8}$ –1 grn.) ev. 2 hrs if necess.; aver., 0.01 Gm. ($\frac{1}{8}$ grn.); 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.), Sq.—**MAX. D.**: 0.1 Gm. ($\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) p.d.; as ecboic, p.d. 0.5 Gm. ($7\frac{1}{2}$ grn.) intern., or 0.3 Gm. (5 grn.) subcut., Sq.—**APPL.**: As astring., 0.1%–0.5% solut.; in skin dis., 1% oint. or aqu. solut.—**VETER. MED.**, dogs 0.1 Gm. ($\frac{1}{2}$ grn.) single, 0.3 Gm. (5 grn.) p.d.

Hydrastine Sulphate Merck

$(C_{21}H_{21}NO_6)_2 \cdot H_2SO_4$ = 864.64.—Yellowish-wh., hygroscop. powd.—**SOL.**: Eas. W., A.—**USES:** As of hydrastine hydrochloride.—**CAUTION!** Do not confuse with the Eclectic "Hydrastin Sulphate."

Hydrastinine—(Not Hydrastine)

$C_{11}H_{11}NO_2 \cdot H_2O$ = 207.17.—Fr. hydrastine by oxid'n; or fr. narcotine.—Wh. or sltly yellowish, v. bitter cryst.—**SOL.**: Eas. A., C., E.; insol. cold, moderately in hot, W.; also sol. in acids.—**MELT.**: 116°–117° C.—**ACTION & USES:** As of the hydrochloride (*q.v.*)—**DOSE:** 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.).

Hydrastinine Hydrochloride Merck—U.S.P. IX

$C_{11}H_{11}NO_2 \cdot HCl$ = 225.62.—Yellowish-wh., hygrosc., cryst. powd., or light-yellow needles.—**SOL.**: v. eas. W., & A.; 195 C., & 1820 E., at 25° C.—**MELT.**: Abt 210° C., w. part. decomp.—**ACTION:** Uterine Hemostatic; Emmen.; Vasoconstrictor.—**USES:** Hemorrhages (uterine, pulmonary, &c.), congest., dysmenorr., metrorrhagia, epilepsy, hemoptysis, hematemeses, epistaxis, night-sweats of phth., heart dis., acute & chron. aortitis, arteriosclerosis.—**DOSE:**

Aver., 0.03 Gm. ($\frac{1}{2}$ grn.).—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.) single, 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.—*Subcut.*, 0.5–1 cc. (8–15 M) of a 10% aqu. solut.; in epilepsy 0.01–0.02 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.) single, 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) p.d.; in hemopt., 0.03 ($\frac{1}{2}$ grn.) 3–4 t.p.d.—*VETER. MED., dogs*, 0.5–1 cc. (8–15 M) of 10% solut.

Hydrastis—U.S.P. X; B.P.

Golden Seal; Orange Root; Yellow Root; Yellow Puccoon; Turmeric Root; Indian Turmeric.—Dried rhizome & roots of *Hydrastis canadensis*, L., Ranunculaceae, cont'g not less than 2.5% E.-sol. alkaloids, U.S.P.—*HABIT.*: N. America.—*CONSTIT.*: Hydrastine (1.5%–3.2%, B.P.C.); berberine (abt 3%, B.P.C.); canadine; volat. oil; resin.—*ACTION*: Hemostat. (in uterine hemorrhages); Bitter Tonic; Antiper.; Alter.; Cholag.; Antihidrotic; Astring.—*USES*: Uterine hemorrhage, jaundice, leucor., piles, gonorr., night-sweats, & intern. hemorrhage, catarrh, dyspep., constip.—*DOSE*: 0.6–4 Gm. (10–60 grn.); aver. dose 2 Gm. (30 grn.).—*Fl'dextr.*, 0.6–4 cc. (10–60 M).—*Hydro-alcoh. extr.*, 0.2–0.6 Gm. (3–10 grn.). *Tr.*: (1:5), 1.3–6 cc. (20–90 M).

Hydrazine Dihydrochloride

$N_2H_4 \cdot 2HCl = 104.98$.—Wh., cryst. powd.—*SOL.*: Eas. W.; v. diffic. A.—*MELT.*: Abt 198° C. (*differ. fr. hydrazine monohydrochloride*).—*USES*: Organic synthesis; manuf. phenylhydrazine.

Hydrazine Hydrate

Diamide Hydrate.— $H_2N \cdot NH_2 \cdot H_2O = 50.06$.—Strongly alkal. & refractive liq.; fumes in air; faint, charact. odor.—*SOL.*: Eas. W., A.; insol. C., E.—*Sp. GR.*: 1.037–1.038 at 15° C.—*BOIL.*: 119° C.—*USES*: Chem. analysis & synthesis.

Hydrazine Sulphate Merck—Reagent

Diamine Sulphate.— $(NH_2)_2H_2SO_4 = 130.12$.—Colorl. cryst., or wh., cryst. powd.—*SOL.*: Abt 40 W.; insol. A.—*MELT.*: 254° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.005%
Heavy Metals.....	0.000%

USES: Separat'g & determ'g As; determ'g & separat'g Cu (Jannasch-Biedermann); reag. f. blood (Domenicis; Puppe; Riegler), & f. NO_3 in presence of NO_2 .

Hydrazine Sulphate Merck

Diamidogen, or Diamine, Sulphate.— $NH_2 \cdot NH_2 \cdot H_2SO_4 = 130.12$.—Wh. cryst. powd.—*SOL.*: 33 W. at 20° C.; insol. A.—*ACTION*: Antisep.—*USES*: Destroy fungi, mold, & bacteria.

HYDRAZINE YELLOW—see Tartrazine

HYDRAZINECARBONAMIDE HYDROCHLORIDE—see Semicarbazide Hydrochloride

Hydrazobenzene

Hydrazobenzol.— $C_6H_5 \cdot NH \cdot NH \cdot C_6H_5 = 184.17$.—Fr. azobenzene by $(NH_4)_2S$.—Wh. to yellowish cryst. powd.—*SOL.*: A., B., C., E.; v. sltly

W.—*MELT.*: 226°–228° C.—*USES*: Manuf. benzidine; intermediates.

HYDRAZOBENZOL—see Hydrazobenzene

Hydrobenzamide

Tribenzylidenediamine.— $(C_6H_5 \cdot CH)_3N_2 = 298.27$.—Fr. benzaldehyde & NH_4OH .—Colorl. cryst.; sltly sweet taste.—*SOL.*: A., E.; insol. W.—*MELT.*: 110° C.

Hydroberberine

Tetrahydroberberine; *β*-Canadin.— $C_{20}H_{21}NO_4 = 339.28$.—Fr. berberine by nasc. H.—Pale-yellow cryst.—*SOL.*: A., C., CS_2 ; insol. W.—*MELT.*: 167° C.

HYDROCHINONE—see Hydroquinone

HYDROCODEINON—see Dicodeid

Hydrocotarnine

$C_{12}H_{15}N_3O + \frac{1}{2}H_2O = 230.20$.—Alkaloid fr. opium; also fr. narcotine by nasc. H.—Wh. cryst.—*SOL.*: Eas. A., B., C., E., alkalies.—*MELT.*: 55° C.

Hydrocotoin

Benzocotoin; Benzoylphloroglucindimethylester.— $OH \cdot C_6H_2(CO \cdot C_6H_5) \cdot (OCH_3)_2[2:4] = 258.19$.—Fr. paracoto bark.—Yellow need.—*SOL.*: A., C., E.—*MELT.*: 98° C.

HYDROERGOTININE—see Cornutine; Ergotoxine

HYDROERGOTININE (KRAFT)—see Ergotinine

Hydrogen

H = 1.008.—Fr. W. by electrolysis; by act. of HCl or H_2SO_4 on Fe or Zn; various o. methods.—Colorl., odorl. (when pure), tastel. gas; inflammable or explosive when mixed w. air, oxygen, Cl & o. gases.—*SOL.*: Abt 1:50 by vol. W. at 0° C.; occluded by Fe, Pt, Pd, & charcoal.—*Sp. GR.*: 0.06949 (air = 1).—*SOLIDIF.*: –259° C.—*USES*: *Techn.*, in balloons & airships; oxyhydrogen blowpipe (welding) & lime-light; manuf. hydrogenated oils & fats, & hydrogenated naphthalenes (tetralin & dekalin) & phenol (hexalin); autogenous welding of steel & o. metals; manuf. quartz glassware; in chemical operations as a reducer, manuf. amines, formates, NH_3 (Haber process), acetylene, synthet. methanol, HCl, etc.; as a fuel in illuminating gas, producer gas; filling tungsten electric light bulbs.

HYDROGEN BORATE—see Acid Boric

HYDROGEN BROMIDE—see Acid Hydrobromic

HYDROGEN CHLORIDE—see Acid Hydrochloric

HYDROGEN CYANIDE—see Acid Hydrocyanic

HYDROGEN DIAMMONIUM PHOSPHATE—see Ammonium Phosphate, Dibasic

HYDROGEN DIOXIDE—see Hydrogen Peroxide

HYDROGEN FERROCYANIDE—see Acid Ferrohydrocyanic

HYDROGEN FLUORIDE—see Acid Hydrofluoric

HYDROGEN IODIDE—see Acid Hydriodic

HYDROGEN NITRATE—see Acid Nitric

HYDROGEN PEROXIDE MERCK, 30%—see Superoxol

Hydrogen Peroxide Merck—U.S.P. X

Solution Hydrogen Dioxide.— $\text{H}_2\text{O}_2 = 34.02$; cont's 3% by wt $\text{H}_2\text{O}_2 = 10$ vols available O.—Fr. BaO_2 by H_2SO_4 , or electrolytically through persulphates.—Colorl., sltly acidulous liq.; foams in the mouth.—Misc.: W. or A. all proport.—Sp. Gr.: Abt 1.014 at 15.5°C .—ACTION: Nonpoisonous, non-irritating Disinfectant; Antisep.; Deodorizer; Antizymotic.—USES: *Intern.*, gastrointest. fermentation, flatulence, acute infant. diarrhea, abdom. typhoid, hyperacidity.—*Extern.*, in 0.3% strength as lotion or eye drops in blepharitis, conjunctivitis, keratitis; in gynecol. on tampons, in inoperable carcinoma & purulent processes; in surgical operations; as spray in whoop.-cough, diphth., sore throat, rhinitis; as gargle or mouth wash; should not be used in otorrhea as it may give rise to uncomfortable or even dangerous symptoms if occluded in some closed passage or cavity; also used to remove adherent bandages, & as antisep. f. wounds, sores, abscesses, & in dentistry to bleach teeth. Counteracts poisonousness of diphth. & tetanus toxins.—*Techn.*, wh. discharge print'g on indigo-dyed wool; bleach'g feathers, hair, silk, straw, ivory, flour, bone, gelatin, & textile fabrics; renovating old paintings, engravings, etc.; as oxidizer in manuf. dyes; disinfect. hides; refining oils & fats; as antichlor.; w. paraphenylenediamine as a dye f. furs, dead hair, etc.; in photog. as hypo eliminant. Also w. KOH f. cleaning metal surfaces, f. gilding, silvering, etc.—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose 4 cc. (1 fl. dr.).—INCOMPAT.: Alkalies, albumin, NH_4OH , arsenous salts, bals. Peru, phenol, charcoal, chlorides, alkali citrates, ferric salts, G., Au salts, hypophosphites, iodides, limewater, mercurous salts, nitrates, KBr, permanganates, sulphates, tartrates, tinctures, & organic matter in general.—CAUT.: Keep dark & cool.

do. —Ethereal Solution

"Ozonized Ether."—USES: *Intern.*, diabetes & whoop.-cough.—*Extern.*, as antisep., like H_2O_2 , & local. in scarlet fever.—DOSE: 2–4 cc. (30–60 M) sev'l t.p.d.

Hydrohydrastinine Hydrochloride

$\text{C}_{11}\text{H}_{13}\text{NO}_2\text{HCl} = 227.64$.—Fr. hydrastinine by nasc. H.—Fine, wh. powd.—SOL.: Eas. W. MELT.: 274°C .—ACTION: Hemost.; Vasoconstrictor; accelerates respiration, & causes dyspnea; has no action on heart, & causes successive increase, decrease, & increase of blood pressure.—USES: Chiefly in uterine hemorrhage.—DOSE: 0.02–0.03 Gm. ($\frac{1}{2}$ – $\frac{1}{4}$ grn.) 4 t.p.d.—INJ. 0.5 cc. (8 M) 10% aqu. solut.

HYDROLITH—see Calcium Hydride

Hydron

A lead-sodium alloy.—Small, irregular lumps which, on contact w. W., yield pure hydrogen gas (2.6 cu. ft. per lb. substce), & lvs a res. of lead-sponge & NaOH solut.—USES: Source of

H f. laboratory work, portable blowpipes, & burners, etc.

HYDROPYRIN—see Lithium Acetylsalicylate

Hydroquinine

Methylhydrocupreine.— $\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2 + 2\text{H}_2\text{O} = 362.36$.—Found in small quant. in cinchona barks, but now obt'd synthet. fr. quinine.—Wh. cryst.—SOL.: Eas. A., C., E.; v. diffic. W.—MELT.: 168°C .—USES: As of quinine, but partic. f. trypanosomiasis.

Hydroquinine Hydrochloride

Dihydroquinine, or Methylhydrocupreine, Hydrochloride.— $\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2\text{HCl} + 2\text{H}_2\text{O} = 398.82$.—Wh., bitter cryst.—SOL.: 0.5 W., eas. A.; insol. E.—USES: Malaria, trypanosomiasis, whoop.-cough & where quinine indic.; partic. useful f. hypod. use, 0.6 Gm. (10 grn.) = 0.8–1 Gm. (12–15 grn.) quinine in effect.—DOSE: *Subcut.*, 0.5 Gm. ($7\frac{1}{2}$ grn.).—In whoop.-cough, as solut. of 1 Gm. (15 grn.) in 10 cc. (150 M) 0.6% NaCl solut., 2.5 cc. (38 M) p.d. to adults; f. children, 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.); or *intramusc.*, 0.2 Gm. (3 grn.).

Hydroquinone Merck

Paradihydroxybenzene (—zol); Quinol; Hydrochinone.— $\text{C}_6\text{H}_4(\text{OH})_2[1:4] = 110.08$.—Fr. quinone by SO_2 .—Colorl. cryst.—SOL.: Eas. A., E.; 17 W.—MELT.: Abt 171°C .—BOIL.: 285°C . at 730 Mm.—ACTION: Antisep.; Antipyr.—USES: *Intern.*, myalgia, neuralg., infect. fevers, rheum.—*Extern.*, 1%–2% solut. in conjunctiv., gonorr., &c.—*Techn.*, as photo. reducer & developer.—DOSE: Antipyret., 0.3–0.5 Gm. (5–8 grn.) in caps., or in solut.—*Subcut.*, 2 cc. (30 M) of a 10% solut. in W.—MAX. D.: 2 Gm. (30 grn.) single.—Solut. should always be freshly made; old solutions have a caustic action.—CAUT.: Keep fr. air & light.

HYDROQUINONE, GREEN—see Quinhydrone

Hydroquinone-Dimethyl Ether

Dimethylhydroquinone.— $\text{C}_6\text{H}_4(\text{OCH}_3)_2[1:4] = 138.12$.—Fr. hydroquinone, KOH, & CH_3I .—Colorl. cryst.—SOL.: A., E.—MELT.: 56°C .

HYDROXYBENZENE (or —ZOL)—see Phenol

o-HYDROXYBENZYLALCOHOL—see Saligenin

HYDROXYBUTANE—see Alcohol Butylic

HYDROXYHEPTANE—see Alcohol Heptylic

Hydroxylamine Hydrochloride Merck—Reagent

$\text{NH}_2\text{OH.HCl} = 69.50$.—Colorl., hygroscopic cryst.—SOL.: Abt 1 W., 15 A., G.; soluts acid to litmus.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.050%
Ammonium Chloride (NH_4Cl)	0.300%
Sulphate (SO_3)	0.002%
Arsenic (As)	0.0015%
Heavy Metals	Trace

USES: Strong reducer; ppt'g & determ'g Au, Ag, & Hg as metals; w. benzidine f. determ'g sulphates in water; in organ. anal. & synthesis; reag. f. Cu (Bach; Springer), glucose (Bang), acetone (Blumenthal-Neuberg; Fröhner; Stock;

Wester), verbenalin (Bourcier), acetylene (Illosvay), colchicine (Kippenberger).

Hydroxylamine Hydrochloride Merck

$\text{NH}_2\text{OH}\cdot\text{HCl}$ = 69.50.—Colorl. cryst.—SOL.: A., methyl A., G.; v. eas. W.; insol. E.—ACTION: Dermic Antisep.—USES: *Extern.*, inst. of chrysarobin & pyrogallol in chronic psoria., lupus, itch, herpes, & o. skin dis.—*Techn.*, as photo. developer; chem., as reducer.—APPL.: 0.1%–0.5% solut. in A. or W.—CAUT.: Paint only small surface of skin at a time, else general health endangered.

Hydroxylamine Sulphate Merck

Oxammonium Sulphate.— $(\text{NH}_2\text{OH})_2\text{H}_2\text{SO}_4$ = 164.14.—Colorl. cryst.—SOL.: Eas. W.—MELT.: 170°C .

α -HYDROXY- β -METHYLAMINOPROPYL BENZENE — see Ephedrine

HYDROXYMETHYLPROPANE—see Alcohol, Butylic & *iso*-Butylic

β -HYDROXYOCTANE—see Alcohol Caprylic, Normal, Secondary

p-HYDROXYPHENYLETHYLAMINE HYDROCHLORIDE — see Tyramine

HYDROXYPROPANE—see Alcohol *iso*-Propylic

HYOSCINE & SALTS—see Scopolamine & Salts

Hyoscyamine Merck—Fr. Belladonna—Cryst.—(Not Eclectic "Hyoscyamin")

Tropicacid-*i*-tropine Ester.— $\text{C}_{17}\text{H}_{23}\text{NO}_3$ = 289.28.—Alkaloid fr. *Atropa Belladonna*, L., *Hyoscyamus niger*, L., & o. Solanaceae; identical w. daturine.—Wh., levogyrate, felted needles.—SOL.: A., C., E., dil. acids; sltly in W.—MELT.: 106° – 108°C .—ACTION: Mydr.; Hypn.; Sed.; much stronger than Hyoscyamine Amorphous.—USES: Us'y in form of its salts to quiet insane & nervous; ease cough in pth.; asthma, &c.—DOSE: 0.00025–0.002 Gm. ($\frac{1}{240}$ – $\frac{1}{30}$ grn.) sev'l t.p.d. in pill or solut.; as *hypn.* f. insane, 0.008–0.015 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.).—MAX. D.: 0.001 Gm. ($\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) p.d.—ANTID.: As of atropine.

do. —Fr. Hyoscyamus—Amorphous

Alkaloidal mixture fr. *Hyoscyamus niger*, L.; much weaker than Hyoscyamine Cryst.—Brown, syrupy liq.—SOL.: A., C., E.—USES, &c.: As of hyoscyamine, cryst.—DOSE: 0.004–0.015 Gm. ($\frac{1}{15}$ – $\frac{3}{4}$ grn.).—ANTID.: As of atropine.—CAUT.: Do not confound w. eclectic "hyoscyamin"!

Hyoscyamine Hydriodide

$\text{C}_{17}\text{H}_{23}\text{NO}_3\cdot\text{HI}$ = 417.21.—Wh. cryst.—SOL.: W., A.—USES: As of hyoscyamine, cryst.

Hyoscyamine Hydrobromide Merck—Fr. Belladonna—U.S.P. X—Cryst.

$\text{C}_{17}\text{H}_{23}\text{NO}_3\cdot\text{HBr}$ = 370.21.—Wh. cryst.; deliques. on expos. to air.—SOL.: v. sol. W., 2.5 A., 1.7 C., & 2260 E., at 25°C .—MELT.: Abt 152°C .—USES, DOSES, &c.: As of Hyoscyamine, Cryst.; aver. dose 0.0006 Gm. ($\frac{1}{100}$ grn.).

do. —Fr. Hyoscyamus—Amorphous

Alkaloidal mixture.—Deliq., amorph. mass.—SOL.: W., A.—USES, DOSES, &c.: As of Hyoscyamine, Amorph.

Hyoscyamine Hydrochloride Merck—Fr. Belladonna—Cryst.

$\text{C}_{17}\text{H}_{23}\text{NO}_3\cdot\text{HCl}$ = 325.75.—Wh. cryst.—SOL.: Eas. W., A.—MELT.: 149° – 151°C .—USES: *Intern.*, As of atropine sulphate.—*Extern.*, in eye drops like atropine sulphate (same strength solut.), & partic. in cases where a rapid & ephemeral mydriasis & paral. of ciliary muscle desired.—DOSE: Max. single, 0.002 Gm. ($\frac{1}{30}$ grn.), & 0.006 Gm. ($\frac{1}{10}$ grn.) p. day. Aver. dose 0.0005 Gm. ($\frac{1}{120}$ grn.).

do. —Fr. Hyoscyamus—Amorphous

Alkaloidal mixture.—Yellowish-wh., hygroscopic, crumbly mass.—SOL.: W., A.—USES: As of Hyoscyamine, Amorph.

Hyoscyamine Methylbromide

$\text{C}_{17}\text{H}_{23}\text{NO}_3\cdot\text{CH}_3\text{Br}$ = 384.23.—Wh. cryst.—SOL.: Eas. W. & dil. A.; sltly in cold absol. A.; insol. A.—MELT.: 210° – 212°C .—By analogy w. o. alkaloidal methylbromides, this prep. should have a milder therap. action & develop a slighter toxic effect than hyoscyamine & its salts.

Hyoscyamine Sulphate Merck—Fr. Belladonna—Cryst.

$(\text{C}_{17}\text{H}_{23}\text{NO}_3)_2\cdot\text{H}_2\text{SO}_4 + 2\text{H}_2\text{O}$ = 712.66.—Fine wh., cryst. powd.—SOL.: 0.5 W., 4.5 A. (90%) & v. sltly C. & E., B.P.C.—MELT.: 203° – 204°C .—USES & DOSES: As of Hyoscyamine, Cryst.

do. —Fr. Hyoscyamus—Amorphous

Alkaloidal Mixture.—Yellowish, hygrosc. powd.—SOL.: W., A.—USES: As of the alkaloid. Salt most largely used f. restraint of the insane.—DOSE: As of Hyoscyamine, Amorph.

Hyoscyamus—U.S.P. X; B.P.; Fr. Cod.

Henbane; Hog's Bean; Insane Root; Poison Tobacco; Black Henbane.—Dried lvs w. or without tops of *Hyoscyamus niger*, L., Solanaceae, yielding not less than 0.065% hyoscyamine alkaloids, U.S.P. (the seeds are also employed though not official).—HABIT.: Europe; Asia; natur. in U.S.; cultiv. in England.—CONSTIT.: Lvs, Hyoscyne (scopolamine); hyoscyamine (0.045%–0.14% up to 0.27%, B.P.C.); hyoscyipicrin; choline; mucilage.—SEEDS, abt 0.5%–0.6% hyoscyamine & hyoscyne, & abt 20% fixed oil, B.P.C.—ACTION: Narcot.; Antispasmodic; Anodyne; Hypnot.; Mydriatic; Laxat.; Sedat. (to urinary tract).—USES: Lvs, *Intern.*, delir. trem., insomn., mania, spasmodic cough, spinal hyperesthesia, irritable bladder, colic, hysteria, nervous headache.—*Extern.*, in hemorrhoids, rheumat. swell., cancer, ulcers, &c.—DOSE: Lvs, 0.2–0.6 Gm. (3–10 grn.), B.P.C.; aver. dose 0.2 Gm. (3 grn.), U.S.P.; Max. D.: 0.4 Gm. (6 grn.) single, 1.2 Gm. (18 grn.) daily, P.G.—*Extr.*, 0.06–0.12 Gm. (1–2 grn.).—*Fl* dextr., 0.2–0.6 cc. (3–10 M); Max. D., 0.4 cc. (6 M) single, 1.5 cc. (24 M)

daily.—*Juice*, 2–4 cc. (30–60 M).—*Tr.* (1:10), 0.6–4 cc. (10–60 M).—*Seeds*: (B.P.C.) 0.2–0.6 Gm. (3–10 grn.).—*Alcoh. extr.*, 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—*ANTID.*: Evacuants; stimulants (extern. & intern.); morphine; pilocarpine; physostigmine; artif. respiration; brandy; ammonia.

Hyperol

A comp'd of H_2O_2 & urea.—*Wh.*, cryst. powd.; 35% H_2O_2 . *SOL.*: W.; soluts decomp. at 60° C. into O, urea, & W.—*USES*: As oxidizer; chem. anal.; determ. sulphites, sulphides; estimating formaldehyde, etc.

Hypnal

Antipyrine Chloralhydrate; Chloral-antipyrine; Trichloraldehyde - oxyphenyldimethylpyrazol.— $CCl_3.CH(OH)_2.C_{11}H_{12}N_2O = 353.58$.—*Colorl.* cryst. or cryst. powd.—*SOL.*: 11 cold, more eas. hot, W.; 3.5 A.—*MELT.*: 67° C.—*ACTION*: Hypn.; Analg.; Antipyr.—*USES*: Insom. due to pain, headache, spasm. cough, &c.—*DOSE*: 1–2 Gm. (15–30 grn.). Up to 3 Gm. (45 grn.) cautiously!

Hypnone

Acetophenone; Phenylmethylketone; Acetylbenzene.— $C_6H_5.CO.CH_3 = 120.10$.—*Fr.* calc. benzoate & acetate by dry dist'n; & in o. ways.—*Colorl.*, limpid liq.; or at low temp., laminar cryst.; pung. taste.—*SOL.*: v. eas. A., C., E., fatty oils; sltly W.—*SP. GR.*: 1.032 at 15° C.—*MELT.*: 20° C.—*BOIL.*: 202° C.—*ACTION*:

Hypn.—*USES*: Insom.—*Techn.*, in perfumery occasionally, because of its orange-blossom-like odor.—*DOSE*: 0.2–0.5 cc. (3–8 M) in gelat. caps., or in emuls.—*MAX. D.*: 0.5 cc. (8 M) single; 1.6 cc. (25 M) daily.—*VETER. MED.*, as antispasm. & hypnot. f. *dogs*, 0.5–2 cc. (8–30 M); has only a slight effect on *horses*.

Hypophysin

Sterile 1:1000 solut. of active substce of posterior lobe of pituitary body; mkt'd in ampuls of 1 cc. (15 M) ea.—*USES*: As of pituitary gland.

HYPOPHYSIS—see Pituitary

Hypotonin

Ethylenediamine Isovalerate.—*Wh.* powd.; valerian odor; sweetish taste.—*SOL.*: v. eas W.—*MELT.*: 129°–130° C.—*USES*: Climacteric hypertonicity; to reduce blood pressure.—*DOSE*: 0.3 Gm. (5 grn.) 2–3 t.p.d.

HYPOVANADIC HYDROCHLORIDE—see Vanadium Chloride

HYPOXANTHINE—see Sarcine

Hyssop—Fr. Cod.

Whole plant *Hyssopus officinalis*, L., Labiatæ.—*HABIT.*: Europe.—*CONSTIT.*: Volat. oil; tannin; resin.—*ACTION*: Stim.; Carmin.; Tonic; Sudorif.—*USES*: Coughs, colds, & catarrhs, espec. of aged.—*DOSE*: 1–4 Gm. (15–60 grn.) in infus.—*Fl'dextr.*, 2–4 cc. (30–60 M).

HYSSOP, WILD—see Verbena

Iatrol

Oxyiodomethylanilid.— $NH(C_6H_5O_2)(C_2H_5O)_2 = 422.98$.—Grayish-wh., odorl. powd.—*SOL.*: A., E., C.; insol. W., G., fixed oils.—*ACTION*: Antisep.; Cicatrizant, &c., as iodoform.

Ibit

Bismuth Oxyiodotannate.—Greenish-gray, odorl., tastel. powd.—*INSOL.* W.—*ACTION*: Antisep.—*USES*: As of iodoform.

Ibol

Medicinal Charcoal-Kaolin Merck.—A mixt. essentially of Charcoal Medicinal Merck & sterilized kaolin w. 5% adsorbed elemental iodine.—Fine, gray, perf. odorl. & stable powd. insol. in W., but A. or C. dissolves out the I.—*ACTION*: Antisep.; Vulnerary.—*USES*: As the prep'n possesses a high absorption power f. liquids, it is very useful f. absorbing wound secretions (rendering them odorl. at the same time), & f. absorbing bacterial toxins, injurious products of cell degradation, & fusing cellular tissues. The iodine content is sufficient to insure sterilization of the wound, etc., to which the powd. is applied, while causing no irritation. Hence Ibol is satisfactory as a dusting-powd. f. wounds, & partic. in cases where ban-

dages are not easily applied (as f. instance on animals).

Iceland Moss—B.P.C.

Dried lichen, *Cetraria islandica* (L.), Acharius, Discomycetes.—*HABIT.*: Europe; North America.—*CONSTIT.*: Cetraric acid (cetrarin); protocetraric acid; lichenostearic acid; fumaric acid; lichenin (chiefly); isolichenin; lichenocetraric acid; thallochlor (chlorophyll); oxalic & tartaric acids.—*ACTION*: Demulc.; Tonic; Emulsifier.—*USES*: Catarrh, diarrh., & Bright's dis.—*DOSE*: 10–30 Gm. ($2\frac{1}{2}$ –8 dr.) us'y in decoct.

Iceland Spar

Doubly-refracting Spar.—See Calcite.

Ichthalbin

"Ichthyol" Albuminated.—Gray-brown, odorl., alm. tastel. powd.—*SOL.*: In alkaline fluids (such as intestinal secretion); insol. in W., ordinary solvents, & in dil. acids (as gastric juice).—*ACTION*: Extern. & Intest. Antisep. & Antiphlog.; Alter.—*USES*: *Intern.*, enteritis, gastric & intest. catarrh, skin dis., &c.—*Extern.*, ulcers, gynecological affections, etc.—*DOSE*: Adults. 0.6–2 Gm. (10–30 grn.) 2 or 3

times daily, bef. meals, in powd. or in tabl.; childr., 0.12–0.6 Gm. (2–10 grn.).

do. —Tablets, 5 Grains Each

Ichthargan

"Silver sulphoichthyolate," or Silver-Ichthyol, Ichthyol Co.—Brown, odorl., sltly hygrosc. powd.; 30% Ag.—**SOL.**: W., G., or dil. A.; insol. A., C., E.—**ACTION**: Astring.; Antiphlog.; Bacter.—**USES**: *Extern.*, gonorr., 0.04%–0.2% aqu. solut., or as Janet's wash (0.025%–0.2% aqu. solut.); furunculosis; as 5%–10% oint.; posterior urethritis, 3% solut.; trachoma, 0.5%–3% solut.—In **VETER. MED.**, extern. as powd., solut. or oint. on wounds, & intraven. in bacillary dis.; *horses*, 1.5 Gm. (24 grn.); *colts* 0.5 Gm. (7½ grn.); *dogs* 0.01–0.05 Gm. (⅓–¾ grn.).—**INCOMP.**: Soluble chlorides.—**CAUT.**: Keep soluts in amber bottles.

Ichthoform

Ichthyol-formaldehyde, Ichthyol Co.—Blackish-brown, alm. odorl. & tastel. powd.—**INSOL.** W., A.—**ACTION**: Surgical & Intestinal Antiseptic; reported energetic in action, yet non-toxic.—**USES**: *Intern.*, chron. intest. catarrh, tuberc. enteritis, typhoid, intest. fermentation.—*Extern.*, wounds, varicose ulcers, &c.—**DOSE**: Adults, 1–2 Gm. (15–30 grn.) 3–4 t. daily in powd. Children, 0.25–0.5 Gm. (4–8 grn.).—In **VETER. MED.**, *extern.* in mallenders, wounds, etc. in 10% oint., & *intern.* in dysentery in *calves* in doses of 30 Gm. (1 oz.).—**APPL.**: Pure or mixed w. boric acid, starch, &c.

ICHTHYOCOLLA—see Isinglass

Ichthyol

So-called Ammonium "Ichthyolsulphonate" or Ammonium "Sulphoichthyolate." A soluble, sulphonated, hydrocarbon prep'n manuf. by the Ichthyol Co., fr. the oily distillate obt'd fr. a mineral deposit found near Seefeld in the Tyrol.—Introduced by Unna into dermatol. practice.—Thick, brown liq.; bituminous odor; cont's easily assimilable sulphur.—**SOL.**: W., G., & mixt. of equal vols A., W. & E.; partly sol. in pure A. or E.—**MISC.**: Fats.—**ACTION**: Antiphlog.; Mildly Antiseptic; Soothing to inflamed mucous membranes upon which it exerts a Vasoconstrictor Action.—**USES**: *Intern.*, skin dis., scrof., &c.—*Extern.*, 5%–50% oint., solut., &c.; in scarlet fever (in 5%–10% lanum oint.); reported to promote absorption of swellings & effusions in contusions, & to relieve pains in burns, rheumatism, & neuralgia; in urticaria, erosions, carbunc., acne, chilbl., 10% w. G. on tampons or in supposit. in uterine & vaginal inflam.; 1%–3% soluts or 0.06–0.12 cc. (1–2 M) bougies in gonorr.; pure in ivy poisoning.—**DOSE**: 0.2–2 cc. (3–30 M), in pills, caps., or in W.—**INCOMP.**: Acids ppt. a dark, resinous mass; alkali hydroxides or carbonates decompose it; w. alkaloids or their salts, comp'ds are formed of much firmer consistency than Ichthyol, & far less soluble; KI; HgCl₂; hydrastis; resorcinol.—For deodorizing Ichthyol, addition of 1 part each bergamot oil & eucalyptus oil to 50 parts Ichthyol, has been recommended.—Before applying Ichthyol

it is advisable, except in ecz., to wash parts each time in warm W. & dry gently. After inunction or painting, the parts are best covered w. cotton-wool, or flannel, & gutta-percha tissue.—Ichthyol stains may be removed by boiling the fabric in soap & W., or by washing w. soft soap or soap spirit.

CAUTION.—*Ammonium* Ichthyol is the article always understood when simply "Ichthyol" is mentioned. A large number of spurious products & worthless imitation of Ichthyol are on the market under various misleading names. These substitutes, however, vary fr. Ichthyol, & fr. each other, in important physical & chemical characteristics & therapeutic properties, & are derived fr. sources other than the Seefeld shale yielding the true preparation upon which all clinical reports have been based. Physicians & pharmacists are warned that Genuine Ichthyol is sold only in Bottles or Collapsible Tubes, under the Merck seal and label. [A sodium preparation of Ichthyol is also made, which is specially adapted for exhibiting Ichthyol in pill form because of firmer consistency].

ICHTHYOL ALBUMINATED—see Ichthalbin

ICHTHYOL-FORMALDEHYDE—see Ichthoform

IDOCRASE—see Vesuvianite

Idrialite—A fossil resin

Inflammable Cinnabar.—**OCCUR.**: Idria, Austria.—**COMPOS.**: Mercurial salt of a high-molecular resin acid, idrialin.—**COLOR**: Wh., when pure.—**USES**: Minor source of Hg.

Ignatia—N.F. V; B.P.C.; Fr. Cod.

Ignatius Bean; St. Ignatius' Bean.—Dried ripe seed of *Strychnos Ignatii*, Berg., Loganiaceæ.—**CONT.** not less than 2% total alkaloids, N.F.—**HABIT.**: Philippine Islands; natur. in Cochín China.—**CONSTIT.**: Strychnine (abt 2%); brucine (abt 1%); igasuric acid; loganin.—**ACTION**: Nerve Tonic, like strychnine.—**USES**: Chron. constip., dyspep., nerv. dis., neural., paral., & as tonic in convalesc.—**DOSE**: 0.03–0.12 Gm. (½–2 grn.); aver. dose 0.06 Gm. (1 grn.).—**Alcoh. extr.**, 0.008–0.03 Gm. (⅓–⅓ grn.); *Max. D.*: 0.05 Gm. (¾ grn.) single, 0.12 Gm. (2 grn.) daily.—**Fl'dextr.**, 0.06–0.12 cc. (1–2 M).—**Tr.** (1:10), 0.3–1.3 cc. (5–20 M).—**ANTID.**: Emetics, stomach siphon, tannin, KI, chloroform, amyl nitrite, opium, &c.

IGNATIUS BEAN—see Ignatia

Iletin—see Insulin

Ilmenite—Mineral

Titanic Iron Ore.—**OCCUR.**: Egersund, Snarum, & Arendal, Norway; Miask, Ilmen Mts.—**COMPOS.**: Isomorph. mixt. of Fe₂O₃ w. Ti₂O₃, or Fe₂O₃.FeTiO₃ (abt 35% TiO₂).—**CRYST. SYST.**: Hexag. rhomboh. tetartoh.—**LUSTER**: Sub-metallic.—**COLOR**: Iron-black.—**STREAK**: Reddish-brown to brownish-black.—**FRACT.**: Conch.; brittle.—**HARDN.**: 5–6.—**SP. GR.**: 4.5–5.—**USES**: Prepara'g contact masses used in sulphuric acid contact process.

ILVAITE—see Lievrite

IMIDO—see Histamine Hydrochloride

IMIDODIPHENYL—see Carbazole

IMIDOL—see Pyrrol

β -IMINAZOLYLETHYLAMINE HYDROCHLORIDE—see Histamine Hydrochloride

IMINOTETRAMETHYLDIAMINODIPHENYLMETHANE HYDROCHLORIDE—see Auramine Yellow; Pyoktanin Yellow

IMINOUREA—see Guanidine

IMINOXANTHINE—see Guanine

IMPERATORIN—see Peucedanin

IMPERIAL GREEN—see Copper Acetoarsenite

Incarbon—For Animals

Sterilized Charcoal Suspension Merck.—Prepared accord. to a special process expressly f. intravenous injection f. animals.—When shaken, the liq. is uniformly black in color & shows no particles to the naked eye. The liq. possesses in high degree the property of strongly binding crystalloid & colloid poisons, & partic. bacterial toxins as also bacteria, & thus rendering them harmless to the organism.—

USES: In all diseases where toxins are suspected to be present in the blood, partic. in septic diseases, septic phlegmons, purulent tendovaginitis, tetanus, lumbago, urticaria, food-poisoning, febrile catarrhs of upper respiratory passages, epidemic bronchopneumonia, etc.—

DOSE: *Horses & cattle*, the contents of 1–2 tubes (each cont'g 100 cc., as mkt'd); *foals & calves*, 50–100 cc.; *sheep & goats*, 50 cc. The inj. may be repeated if necessary. The liq., after being filtered, is injected directly into the jugular vein, & repeated for 1 or several days. The repeated injection after short intervals need give rise to no concern whatever fr. danger of embolism.

INDIAN ACONITE—see *Aconitum Ferox*

INDIAN APPLE—see *Podophyllum*

INDIAN ARROW WOOD—see *Euonymus*

INDIAN BAEI—see Bael

INDIAN BALM—see *Trillium*

INDIAN BALSAM—see *Balsam Peru*

INDIAN BARBERRY—see *Berberis Aristata*

INDIAN BARLEY-CAUSTIC—see *Sabadilla*

INDIAN BERRY—see *Cocculus*

INDIAN CANNABIS—see *Cannabis*

INDIAN GINGER—see *Asarum*

INDIAN HEMP—see *Cannabis*

INDIAN HEMP, WHITE—see *Asclepias Incarnata*

INDIAN LABURNUM—see *Cassia Fistula*

INDIAN LIC(QU)ORICE—see *Abrus*

INDIAN PHYSIC—see *Apocynum*

INDIAN PINK—see *Spigelia*

INDIAN POKE—see *Veratrum Viride*

INDIAN QUINCE—see Bael

INDIAN RED—see Iron Oxide, Red, Ignited

INDIAN SAFFRON—see *Curcuma*

INDIAN SARSAPARILLA—see *Hemidesmus*

INDIAN SQUILL—see *Urginea*

INDIAN TOBACCO—see *Lobelia*

INDIAN TURMERIC—see *Hydrastis*

"INDIAN YELLOW"—see Cobalt & Potassium Nitrite

Indicators—For Determ'g PH Concentrations

The following are the more important of a very large number of indicators used in determining PH concentrations arranged both alphabetically and according to their PH range.

ALPHABETICAL ORDER

Acid Rosolic

Alizarin Yellow GG—see Salicyl Yellow

Alizarin Yellow R

p-Benzenesulphonicaid-azobenzylaniline (potassium salt)

p-Benzenesulphonicaid-azo- α -naphthylamine (sodium salt)

Bromchlorphenol Blue

Bromcresol Green

Bromcresol Purple

Bromphenol Blue

Bromthymol Blue

Chlorphenol Red

Cresol Red

o-Cresolphthalein

o-Cresolsulphonphthalein — see Cresol Red

m-Cresolsulphonphthalein — see Metacresol Purple

Dibromdichlorsulphonphthalein — see Bromchlorphenol Blue

Dibromthymolsulphonphthalein — see Bromthymol Blue

Dibrom-*o*-cresolsulphonphthalein — see Bromcresol Purple

Dichlorphenolsulphonphthalein — see Chlorphenol Red

p-Dimethylaminoazobenzene

α -Dinitrophenol

β -Dinitrophenol

γ -Dinitrophenol

Metacresol Purple

Methyl Orange

Methyl Red

α -Naphtholbenzein

α -Naphtholphthalein

Neutral Red

m-Nitrophenol

p-Nitrophenol

Phenol Red

Phenolphthalein

Phenolsulphonphthalein—see Phenol Red

Poirrier Blue C4B

Salicyl Yellow

Sodium Indigodisulphonate

Sodium *m*-Nitrobenzeneazosalicylate—see Salicyl Yellow

Sodium *p*-Nitrobenzeneazosalicylate—see Alizarin Yellow R

Tetrabrom-*m*-cresolsulphonphthalein — see Bromcresol Green

Tetrabromphenolsulphonphthalein—see Brom-phenol Blue
Thymol Blue
Thymolphthalein
Thymolsulphonphthalein — see Thymol Blue

1.3.5.Trinitrobenzene
Tropaeolin O
Tropaeolin OO
p-Xylenol Blue
p-Xylenolsulphonphthalein — see *p*-Xylenol Blue

ORDER ACCORDING TO PH RANGE

Indicator	Solution	Range
Methyl Violet.....	0.5%; W.	Yellow 0.1–1.5 blue
Metacresol Purple.....		red 0.5–2.5 yellow
<i>p</i> -Xylenol Blue.....	0.02%; A.	red 1.2–2.8 yellow
Thymol Blue.....	0.04%; A.	red 1.2–2.8 yellow
Tropaeolin OO.....	0.1%; W.	red 1.3–3.0 yellow
Benzopurpurine 4B.....	0.1%; W.	blue-violet 1.3–4 red
Methyl Violet.....	0.5% W.	blue 1.5–3.2 violet
β -Dinitrophenol.....	0.1%; W.	colorl. 1.7–4.4 yellow
<i>p</i> -Benzenesulphonicacidazobenzylaniline (potassium salt).....	0.01%; W.	red 1.9–3.3 yellow
α -Dinitrophenol.....	0.1%; W.	colorl. 2.0–4.7 yellow
<i>p</i> -Dimethylaminoazobenzene.....	0.1%; A.	red 2.9–4.0 yellow
Bromphenol Blue.....	0.04%; A.	yellow 3.0–4.6 blue
Congo Red.....	0.1%; W.	blue 3.0–5.2 red
Methyl Orange.....	0.1%; W.	red 3.0–4.4 orange
Bromchlorphenol Blue.....	0.04%; A.	yellow 3.2–4.8 blue
<i>p</i> -Benzenesulphonicacidazo- α -naphthylamine (sodium salt).....	0.1%; 60% A.	red 3.5–5.7 yellow
Bromcresol Green.....	0.04%; A.	yellow 4.0–5.6 blue
γ -Dinitrophenol.....	0.1%; W.	colorl. 4.0–6.0 yellow
Methyl Red.....	0.2%; 60% A.	red 4.4–6.2 yellow
Chlorphenol Red.....	0.04%; A.	yellow 5.0–6.6 red
<i>p</i> -Nitrophenol.....	0.5%; W.	colorl. 5.0–7.6 yellow
Bromcresol Purple.....	0.02%; A.	yellow 5.2–6.8 purple
Bromphenol Red.....	0.04%; A.	yellow 5.4–7.0 red
Bromthymol Blue.....	0.04%; A.	yellow 6.0–7.6 blue
<i>m</i> -Nitrophenol.....	0.5%; W.	colorl. 6.5–8.5 yellow
Neutral Red.....	0.1%; 60% A.	red 6.8–8.0 yellow
Phenol Red.....	0.02%; A.	yellow 6.8–8.4 red
Rosolic Acid.....	0.5%; 50% A.	red 6.9–8.0 yellow
Cresol Red.....	0.02%; A.	yellow 7.2–8.8 red
α -Naphtholphthalein.....	0.1%; 50% A.	yellowish-rose 7.3–8.7 green
Metacresol Purple.....		yellow 7.6–9.2 purple
Thymol Blue.....	0.04%; A.	yellow 8.0–9.6 blue
<i>p</i> -Xylenol Blue.....	0.02%; A.	yellow 8.0–9.6 blue
<i>o</i> -Cresolphthalein.....	0.02%; A.	colorl. 8.2–9.8 red
α -Naphtholbenzein.....	1%; A.	yellow 8.5–9.8 green
Phenolphthalein.....	1%; 60% A.	colorl. 8.2–10.0 red
Thymolphthalein.....	0.1%; A.	colorl. 9.3–10.5 blue
Salicyl Yellow.....	0.1%; 50% A.	pale-yellow 10.0–12.0 orange
Alizarin Yellow R.....	0.1%; W.	yellow 10.1–12.1 lilac
Poirrier Blue C4B.....	0.2%; W.	blue 11.0–13.0 red
Tropaeolin O.....	0.1%; 50% A.	yellow 11.0–13.0 orange
1.3.5 Trinitrobenzene.....	0.1%; A.	colorl. 11.5–14.0 orange
Sodium Indigodisulphonate.....	0.5%; 50% A.	blue 11.6–14.0 yellow

Indigo

Crude Indigo Blue.—Coloring matter obt'd chiefly fr. *Indigofera tinctoria*, L., *I. Anil*, L., & o. spec. of *Indigofera*.—HABIT.: Bengal; Java; Guatemala.—Dark-blue, odorl., tastel. pieces or powd.—SOL.: Conc. H_2SO_4 .—CONSTIT.: Chiefly indigotin (fr. 90%, down to 20% in poor qualities, B.P.C.).—USES: *Techn.*, in dyeing & printing; formerly intern. in epilepsy, hysteria, etc.

INDIGO BLUE, CRUDE—see Indigo

INDIGO BLUE, SOLUBLE—see Acid Indigodisulphonic

INDIGO CARMINE

INDIGO DISULFOACID

INDIGO EXTRACT

} see Sodium Indigotin-disulphonate

INDIGO, FALSE—see Baptisia

INDIGO, SOLUBLE—see Sodium Indigotindisulphonate

INDIGO WEED }
INDIGO, WILD } see Baptisia
INDIGO YELLOW }

Indigo-Carmine & Sodium-Carbonate Papers, Geissler-Oliver

Strips of wh. paper some of which are impregn. w. a solut. of indigo carmine & some w. a solut. Na_2CO_3 , & then dried.—USES: Detect. sugar in urine (on immersing a strip of ea. paper in the urine, the bluish color imparted to the urine changes successively to green, red, & yellow, fr. reducing action of sugar on the indigo carmine [Mulder's reaction]).

Indium

In = 114.80; discovered in 1863 by Reich & Richter.—Ductile, lustr. silver-wh. metal; softer than lead.—SOL.: Eas. mineral acids.—SP. GR.: 7.36 at 15° C.—MELT.: 155° C.—BOIL.: 700° C.—The indium salts have so far found practically no application medicinally & technically.

Indium Chloride

Indium Trichloride.— InCl_3 = 221.18.—Yellowish, hygrosc. powd.—SOL.: Eas. in W.

Indium Oxide

Indium Sesquioxide.— In_2O_3 = 277.60.—Wh. to pale-yellow powd.—SOL.: Hot acids.

INDIUM SESQUIOXIDE—see Indium Oxide

Indium Sulphate

$\text{In}_2(\text{SO}_4)_3$ = 517.78 + aq.—Wh. or gray, hygrosc. powd.—SOL.: W.

INDIUM TRICHLORIDE—see Indium Chloride

Indol—Cryst.

Ketole.— $\text{CH}:\text{CH}.\text{C}_6\text{H}_4.\text{NH}$ = 117.10.—Decomp'n prod. of pancreas; obt. fr. albumin by fusing w. KOH, or fr. *o*-nitrocinnamic acid, KOH, & Fe filings by heat, & *o*. ways.—Color: to yellowish scales; intense fecal odor.—SOL.: A., E., ligroin; hot W. In highly dilute solut., indol possesses an odor like that of orange blossoms.—MELT.: 52° C.—BOIL.: 254° C., w. decomp.—USES: Best microchem. reagent for lignified cellular tissue, *e.g.*, wood shavings (Czapek; Niggli; Warnecke); also f. HNO_2 (Bujwid; Dané), glyoxylic acid (Eppinger; Schloss), carbohydrates (Fleig).

INDOLALANIN—see Tryptophan

Indophenol

α -Naphthol Blue.— $(\text{CH}_3)_2\text{N}.\text{C}_6\text{H}_4.\text{N}:\text{C}_{10}\text{H}_6\text{O}$ = 276.23.—Fr. dimethylparaphenylenediamine, α -naphthol, & $\text{K}_2\text{Cr}_2\text{O}_7$.—Brown powd.—SOL.: A., & acetic acid; insol. W.—USES: Dye.

do. —White

Leucoindophenol.— $\text{C}_{18}\text{H}_{18}\text{N}_2\text{O}$ = 278.25.—Reduct.-prod. fr. blue indophenol.—Whitish paste.—SOL.: Dil. acids.—USES: Dye.

Induline—Alcohol-soluble

Alcohol-soluble Fast Blue; Azin Blue; Printing Blue; Acetin Blue; Nigrosine; Anilindodiphenylsafranin Hydrochloride (?).—Blue-black powd.—SOL.: A., w. blue color; insol. W.—USES: For black spirit lacquers & varnishes, & in printing fabrics blue.

do. —Water-soluble

Water-soluble Fast Blue; Solid Blue; Water-soluble Nigrosine.—Sodium salts of the sulphonic acids of various alcohol-soluble indulines.—Powd. w. bronze-like luster, or black, lustr. pieces.—SOL.: W., w. blue-violet color; in A., w. blue color.—USES: Dyeing wool, & manuf. ink.

Ingluvin

Enzyme fr. gizzard of domestic hen.—Yellowish, horny masses, or gran. powd.—SOL.: W.—ACTION: Proteolytic.—USES: Morning sick, of pregn.; dyspep.—DOSE: 0.3–1.3 Gm. (5–20 grn.) bef. meals, & followed by 30 cc. (1 fl. oz.) of a 1% solut. HCl.

INK, ETCHING—see Diamond Ink

Inosit

Phaseomannite; Meat Sugar; Nucite; Hexaoxyhexahydrobenzene.— $\text{C}_6\text{H}_6(\text{OH})_6 + 2\text{H}_2\text{O}$ = 216.16.—Carbohydrate us'y fr. muscular tissue of animals, but also found in many plants (*e.g.*, lvs of *Fraxinus excelsior*, &c.).—Color: slightly inactive, effloresc. cryst.—SOL.: v. eas. W.; insol. absol. A., & E.—MELT.: 225° C. when anhydrous.

INSANE ROOT—see Hyoscyamus

INSECT WAX—see Chinese Wax

Insipin

Quininediglycolic acid Sulphate.— $\text{O}:(\text{CH}_2.\text{CO}.\text{C}_{20}\text{H}_{23}\text{O}_2\text{N}_2)_2.\text{H}_2\text{SO}_4 + 3\text{H}_2\text{O}$ = 898.78.—Wh., odorl., tastel., cryst. powd.; 72.2% quinine.—SOL.: Acids; sltly hot W. & hot A.; insol. cold W. & cold A.—ACTION: Febrif.; Antimalar.—USES: Malaria, etc.; partic. useful for childr., as tasteless.—DOSE: Abt 1½–2 times greater than of quinine.

Insulin

Iletin.—A hormone obt'd from the Islands of Langerhans of the pancreas in the form of an alcoholic purified extract.—ACTION: On subcutaneous injection promptly reduces the sugar content of the blood. Standardized by physiological assay so that 1 unit represents the quantity that will cause the blood sugar of a 2-kilo rabbit to fall to 0.045% within 4 hrs, at which low level characteristic convulsive symptoms appear which terminate fatally. Insulin is so powerful an agent that it may cause death from hypoglycemia, by reducing the blood-sugar fr. 0.15% (normal) to 0.032% at which point death ensues. Where blood-

sugar is excessively or dangerously low, & coma supervenes, an intravenous inj. of dextrose relieves the condition.—USES: Diabetes, partic. of severe form.—DOSE: 1–2 or more units by subcut. inj., accord. to severity of disease.

Intarvin

Glyceryl Margarate.—($C_{16}H_{33}COO$) $_3C_3H_5$ = 849.10.—A synthetic fat w. an odd number of carbon atoms; contains also sm. quant. of glyceryl esters of pentadecylic, palmitic, & stearic acids, petrolatum, & water.—Wh., lumpy masses; odor & taste of tallow.—SOL.: Eas. C., E.; insol. W.—USES: Diabetes, as nutrient.

Intramine

Diorthoaminothiobenzene. — USES: Syph., protozoal & chron. bacterial dis., acid intoxications, & poisoning by metals.—DOSE: 0.06 Gm. (1 grn.); mkt'd in ampuls of 10 cc. ea. = 0.06 Gm. substce.

Inula—N.F. V; B.P.C.

Elecampane; Scabwort; Elfwort; Horse-heal.—Dried rhizome & roots of *Inula Helenium*, L., Compositæ.—HABIT.: Central Asia; Europe; natur. in U. S.—CONSTIT.: Volat. oil; alantol; helenin; alantic acid; acrid resin; inulin; mucilage.—ACTION: Expector.; Stim.; Diuret.; Diaphor.; Emmen.; Tonic.—USES: *Intern.*, amenor., dyspep., bronch., & dropsy.—*Extern.*, psoria, tetter, & o. skin dis.—DOSES: 2–4 Gm. (30–60 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.3–0.6 Gm. (5–10 grn.).—Liq. extr., 2–4 cc. (30–60 M).

INULA CAMPHOR—see *Helenin*

Inulin Dragendorff

Fr. roots of *Cichorium Intybus*, L.—Yellowish-wh. powd.—USES: as of following.

do. Kiliani—White

Dahlin; Alantin; Alant Starch.—($C_6H_{10}O_5$) $_n$.—Starch-like carbohydrate fr. recent bulbs of *Dahlia variabilis*, & o. Compositæ.—Wh., starch-like powd.—SOL.: Boil. W.; sltly cold W.; alm. insol. absol. A.; insol. E.—Converted into levulose by acids.—USES: Bread f. diabetics.

INVERTASE—see *Invertin*

Invertin

Invertase; Zymase.—Enzyme fr. yeast (*Saccharomyces* species); converts sucrose into dextrose & levulose.—Whitish powd.—SOL.: W.—USES: Fermentation industries; production of alcohol fr. sugar.

Iocamfen

Iodine-camphor-phenol prep. cont'g 7.25% free I.—Dark, reddish-brown, viscid liq., free fr. alkali iodides, A., G.—SOL.: All prop. A., B., E. & oils; insol. W.—ACTION: Loc. Antisept. & Disinf.—USES: As solut. or 50% oint. (5% I) f. wounds, abscesses, cavities, musc. & artic. rheum., lumbago, neuralg., etc., applied directly or on bandages, gauze, etc. Also in dentistry in pyorrhea, loosening of

gums, periodontitis, pulpitis, ulcerative gingivitis, stomatitis, etc.

IODABS—see under *Iodine Colloidal*

p-Iodacetanilid

Iodantifebrin; Acetoparaiodanilid; Monoiodphenylacetamide.— $C_6H_4I.NH(C_2H_5O)$ = 261.03.—Fr. acetanilid in acet. acid by ICl.—Colorl. cryst.—SOL.: Eas. A., glac. acet. acid; insol. W.—MELT.: 183° C.—Therapeutic data lacking.

Iodalbacide

Yellowish-wh. powd.—10% I.—SOL.: W.—USES: Tert. & second. syph., bronch. asthma, chronic catarrhal affect. of respir. organs, struma, arthritis, & psoria.—DOSE: 1 Gm. (15 grn.) 3–6 t.p.d.

Iodalbin

Comp'd of I & blood albumin.—Reddish, alm. tastel. powd.; abt 21.5% I.—SOL.: In alkaline liquids; alm. insol. in W., acids, or A.—ACTION: Alter.; Resolv.—USES: As of iodides; also in syph., metal. poisoning, & subac. rheum.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

IODAMYL—see *iso-Amyl Iodide*

p-Iodaniline

Paraiodaniline.— $C_6H_4.NH_2.I[1:4]$ = 219.01.—Fr. aniline & I.—Colorl. to yellowish cryst.—SOL.: Eas. A., C., E.—MELT.: 63° C.—ACTION: Antisep.

p-Iodaniline Hydrochloride

$C_6H_4.NH_2.I.HCl$ = 255.47.—Yellowish cryst.—SOL.: Eas. A., sltly W.

p-Iodaniline Sulphate

$(C_6H_4.NH_2.I)_2.H_2SO_4$ = 536.09.—Yellowish cryst.—SOL.: Slty W.

o-Iodanisol

Anisol Orthoiodide.— $C_6H_4.OCH_3.I[1:2]$ = 234.01.—Fr. anisol by I & HIO_3 .—Yellow liq.; darkens on expos. to air.—SOL.: Eas. in A., C., E.; insol. W.—SP. GR.: 1.81.—BOIL.: 240° C.—ACTION: Antisep. like iodoform; energetic Loc. Irrit.

IODANTIFEBRIN—see *p-Iodacetanilid*

IODANTIPYRINE—see *Iodopyrine*

Iodbenzene

Monoiodbenzene (or, -zol).— C_6H_5I = 203.99.—Fr. benzene by ICl & $AlCl_3$.—Colorl. liq., rapid. becom. yellow; charact. odor.—SOL.: A., C., E.; insol. W.—SP. GR.: 1.833.—BOIL.: 185° C.—CAUT.: Keep dark.

Iod-Diuretal

Theobromine Potassium Iodide.—Colorl., bitter powd.; mkt'd in tabl. ea. cont'g 0.5 Gm. (7½ grn.) theobromine & 0.2 Gm. (3 grn.) potass. iodide.—USES: Cardiac asthma, angina pectoris, arteriosclerosis, & cardiac neuroses of arteriosclerotic origin.—DOSE: ½–1 tabl. 3–4 t.p.d.

IODEIKON = TETRAIODOPHENOLPHTHALEIN SODIUM

Iodeosine Merck—Reagent

Tetraiodofluorescein.— $C_{20}H_8I_4O_5$ = 835.84.—Scarlet red powd.—**SOL.**: Eas. A. (deep-red solut.); E. (yellowish-red solut.); insol. W. cont'g a trace of acid.—**Indicator solut.** 0.1 Gm. + 100 cc. A.—**TEST F. SENSITIVENESS**: To 100 cc. W. in a well rinsed, colorl., glass-stop. flask add 5 drops indicator solut. + 30 cc. E., then add by drops 0.01*N* HCl, shak'g after add'g ea. drop, till aqu. layer just colorless; now add 5 drops more iodeosine solut. & again shake—aqu. layer should not acquire a pink color, or, if it should, color must disappear on add'g 1 drop 0.01*N* HCl.—**USES**: Indicator, especially suitable f. titrating minute quantities of acids & alkalis, & also alkaloids.

Iodeosine

Tetraiodofluorescein.— $C_{20}H_8I_4O_5$ = 835.84.—Red powd.—**SOL.**: A., E.; insol. W. (the sodium salt—see Erythrosine—is soluble in W.).—**USES**: Dye.

Iodferratin

Sodium Iodferralalbuminate.—Brown powd., cont'g 6% Fe & 6% I in organ. comb.—**SOL.**: Hot W.—**USES**: Scrofula, rickets, chron. endometritis, malaria, syph., & skin dis.—**DOSE**: 0.5 Gm. (8 grn.) 3–4 t.p.d.

Iodferratose

Palatable solut. iodferratin cont'g 0.3% Fe & 0.3% I.—**USES**: As of preced.—**DOSE**: Adults, 3–4 tablesp. p.d.; childr. 3–4 teas. p.d.

Iodglidin

Iodine comp'd of glidin.—Yellow, odorl., alm. tastel. powd.—10% I.—**INSOL.** W.—**USES**: Obesity, & where iodides required.—**DOSE**: 2–6 Gm. (30–90 grn.) p.d. in 0.5 Gm. tabl.

Iodincarbon

Iodine-Blood Charcoal Merck.—A suspension of blood charcoal cont'g iodine absorbed in finest state of subdivision, & specially intended, after being filtered, for intravenous injection.—**USES**: Foot & mouth disease (removes f. a certain period toxic substes fr. the blood, & effects internal disinfection thro. liberation of iodine in the blood).—**DOSE**: *Intraven.*, *sheep & goats* 50 cc. (12½ fl. dr.); *calves*, 100 cc. (25 fl. dr.); *young cattle* 150 cc. (5 fl. oz.); *grown cattle* accord. to size 200 cc. (25 fl. dr.) or more.

Iodine Merck—Reagent

I = 126.92.—Heavy, bluish-black scales or plates w. metallic luster.—**SOL.**: Readily in abt 10 A., E., C., & abt 5 CS₂; sltly W. (abt 3000); eas. in soluts. of alkali iodides.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.010%
Chlorine & Bromine (as Cl)...	0.003%
Cyanogen Compds (CN).....	0.005%

USES: Standard soluts; microscop.; organ. synthesis; estim. degree of saccharification in distillery practice; volum. determ. thiosulphates, sulphites, sulphides, As, Hg, Sn, Sb, acetone, & tartar emetic; determ. I-No. of fats & oils; detect'g starch, cellulose, tannic & gallic

acids, Bi, & phenols; alkaloidal reagent; also as reag. f. mercerized cotton (Hübner), bile pigments (Obermayer), albumin (Oguro), acetoacetic acid (Ondrejowich), Mg (Schlagdenhauffen), adrenalin (Vulpian), P₄S₃ (Wolter), & f. typhoid (Woskressenski).

Iodine Merck—C.P.

I = 126.92.—Discov. in 1811 by Courtois.—Bluish-black scales or plates; metallic luster; pecul. odor; sharp, acrid taste.—**SOL.**: Abt 10 A., abt 5 CS₂, C., E.; abt 3000 W.—**MELT.**: Abt 114° C., but volatilizes at a lower temp.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chlorine & Bromine (as Cl)...	0.010%
Cyanogen Comp'ds (CN).....	0.005%

USES: As of the Reagent, above.

do. Merck — U.S.P. X — Resublimed, or Resublimed Granular

DESCRIPT.: As preced'g.—**SOL.**: 12.5 A., 2950 W., 80 G., & 4 CS₂ at 25° C., freely in C., CCl₄, E., & aqu. solut. alkali iodides.—**SP. GR.**: Abt 4.66 at 17° C.—**MELT.**: Abt 114° C.—**ACTION**: Antisep.; Germicide; Alter.; Caustic.—**USES**: *Intern.*, gastric ulcer, tert. syph., typhoid, antid. to phenol poison., cholera.—*Extern.*, by inhal. in asthma, croup, & bronch.—Germicide, as 0.2%–1% solut.; 5% solut. f. disinf. hands & operative sites; disinf. hands, 1 l, 750 petrol. E., & 250 liq. paraffin; surg. antisept.; 1:1000 solut. as irrig. in uterine sepsis, abscess cavities, & empyema.—*Oint.* (4%), in erysip., & o. skin dis.—*Tincture* (abt 7%), in enlarged & scrof. glands & cervix uteri, to hasten resorption of exudates, in inflam.; sore or abraded feet fr. long marches; wound disinf., & to prevent pitting in smallpox; infected wounds of scalp, leg ulcer, inguinal adenitis, vaginitis, & gonorrh. vaginitis, applied by swab; as paint f. lupus vulgaris.—*Techn.*, manuf. many important pharmaceut. & photog. prep.—**DOSE**: 0.005–0.03 Gm. (1/12–1/2 grn.) in dil. solut.; aver. dose 0.01 Gm. (1/6 grn.); in phenol poison., 0.3 cc. (5 M) tinct. w. 1 teas. W. ev. 4 hrs.; in typhoid 0.2–1 cc. (3–15 M) tinct. 3–4 t.p.d.; in gastric ulcer, 0.6 cc. (10 M) tinct. w. W. 3 t.p.d.; in tert. syph., 0.15 Gm. (2½ grn.) w. KI p. d.; in cholera, 0.06 cc. (1 M) tinct. w. W. ev. 1/2–1 hr., & a rectal inj. of 1:200 dilution.—**MAX. D.**: 0.05 Gm. (¾ grn.) single; 0.2 Gm. (3 grn.) p.d.—**ANTID.**: Emetics, stom. siphon, starchy foods in abundance, sodium sulphilate, calcined magnesina, analeptics, starch injections, sodium thiosulphate (tablesp. doses of 2:150 solut.), amyl nitrite by inhalat.—**INCOMP.**: Oil turpentine, starch, veget. colors, tannin, alkaloids, alkalies, metallic salts.

do. Merck—Crude, Technical

Black-gray cryst.—**SOL.**: As of preced'g.—**USES**: Process engraving, lithography, photography, manuf. iodides & iodine comp'ds, aniline dyes, & as catalyst in manuf. intermediates; as germicide & antiseptic.

IODINE APPLICATORS—see under Iodine Colloidal

IODINE-BLOOD CHARCOAL—see Iodincarbon

IODINE BROMIDE—see Iodine Monobromide & Tribromide

IODINE CHLORIDE—see Iodine Monochloride & Trichloride

Iodine Colloidal Merck—**Accord. to Dr. W. L. Chandler**

Supplied in the following forms:

Applicators

Tipped w. dry colloidal iodine (accord. to Chandler), rapidly water-soluble, & in an easily portable form convenient f. instant use in place of tinct. iodine f. treating cuts, wounds, bites, abrasions, ulcers, sores, fissures, infected surfaces, etc.; applicable also where local sterilization required, *e.g.* on mucous membranes of throat, gums, etc., as "free" iodine is liberated in its most effective form, while at the same time it is pract. free fr. irritant action even on the sensitive skin, does not blister, & its sterilizing action is quite rapid.—**APPLIC.**: The charged tip is simply rubbed on the part to be treated after the tip has been first moistened w. a drop or so of water.—**NOTE**: If kept dry, the colloidal iodine does not spoil, & the bactericidal, sterilizing power remains constant until the last particle has been used.

Iodabs

Short sticks tipped w. dry colloidal iodine (accord. to Chandler) & intended for household use inst. of tinct. iodine f. sterilizing wounds, abrasions, etc.

Powder—25% Iodine

Suspensoid—Abt 20% Iodine

Elemental colloidal iodine in form of an extremely fine brick red powd. suspended in W., & capable of instantly affording saturated aqu. soluts of elemental iodine. In this form iodine is comparatively nonirritating, nontoxic, does not blister even tender skin or mucous surfaces, & yet possesses very great bactericidal power, *e.g.*, the bacteria in 0.1 cc. of a bacillus typhosus culture when introduced into 5 cc. of a 2:1,000,000 solution of colloidal iodine are killed within 15 minutes, & in a 17:1,000,000 solution are killed within 2½ minutes.—**USES**: Partic. f. destroying worm eggs & larvæ, and coccidial cysts on domestic animals, their living quarters, soil, etc.—**APPLIC.**: 1 vol. thoroughly shaken suspensoid is mixed w. the quant. of water directed & first applied to floors, dropping boards, concrete, runways, stables, etc.; subsequent applications may be made w. weaker solutions, using 1–2 gals per 100 sq. ft. of surface, and applied with a broom.—[Literature will be sent by Merck & Co, Inc., on request.]

Vermicide—16%–17% Iodine

A colloidal iodine comp'd especially intended f. destroying parasites in domestic animals. Iodine Vermicide gives off free iodine continuously as it passes down the digestive tract and in sufficient quantity to kill the parasites as it comes into contact with them.—**USES**: Roundworms in *poultry*, young *pigs*, *foxes*, *dogs*, etc.; tapeworm in *poultry*; coccidi-

osis in *chicks* and young *turkeys*; hookworms in *foxes*; stomach worms in *sheep*, etc.—Marketed as *Liquid for poultry*.—[Literature will be sent by Merck & Co., Inc., on request.]

Iodine Cyanide

Cyanogen Iodide.—ICN = 152.93.—Colorl. need.; v. pung. odor; acrid taste; violent poison f. warm- & cold-blooded animals.—**SOL.**: W., A., E., volat. oils.—**ACTION**: Bactericide; Germicide.—**USES**: Generally f. destroying all lower forms of life. In tadermy f. preserv. insects, butterflies, &c.—**ANTID.**: Stom. siphon, plenty warm water, cold douches, artif'l respir., NH₃, Cl, &c.—**CAUT.**: Poison!

Iodine Monobromide Merck

Bromine Iodide.—IBr = 206.84.—Reddish brown, cryst. mass; penetrat'g odor.—**SOL.**: W., A., C., E., CS₂.—**MELT.**: 36°–38° C.—**USES**: Determ. I-No. (Hanus).

Iodine Monochloride Merck

ICl = 162.38.—Reddish-brown, oily, pungent liq., or blackish-red cryst.—**SOL.**: W., A., HCl; alkalis decomp. it.—**MELT.**: (cryst.) 25°–30° C.—**BOIL.**: 100° C.

IODINE PENTOXIDE—see (Acid) Iodic Anhydride

IODINE SUSPENSOID—see under Iodine Colloidal

Iodine Tribromide

Iodine Bromide.—IBr₃ = 366.68.—Dark-brown liq. — **SOL.**: W. — **ACTION**: Antisep. — **USES**: Diphth., &c., in form of spray, & in gargles (in 1:300 solut. w. 0.5 Gm. [8 grn.] KBr), & given w. 3–4 Gm. (45–60 grn.) sod. benzoate p.d.

Iodine Trichloride Merck

ICl₃ = 233.30.—Yellow or brownish-red, deliq., cryst. powd.; pung., irrit. odor.—**SOL.**: 5 W., A., B., E.—At 25° C. decomp. into monochloride & chlorine.—**ACTION**: Antisep.; Disinf.; Antizym.; Alter.—**USES**: *Intern.*, abnormal gastric decomp'n processes.—Chiefly *extern.*, as 1:1000 solut. in ulc., cutan. dis., gonorr., & surg. pract.—*Techn.*, chlorination of organic substcs.—**DOSE**: 0.01 Gm. (½ grn.) in 1:1500 solut.—**MAX. D.**: 0.01 Gm. (½ grn.) single; 0.03 Gm. (½ grn.) p.d.—**VETER. MED.**, *extern.*, in purulent sores & ulcers; *intern.*, in intest. fermentation, diarrh. in *calves* & *foals*, etc., in doses of 0.2–1 Gm. (3–15 grn.) in 0.2% aqu. solut.—**CAUT.**: Keep solutions & powd. fr. light & air. Poison!

IODINE VERMICIDE—see under Iodine Colloidal

Iodipin 10%

Iodized Vegetable Oil Merck, 10% I.—An iodine addition-product of vegetable oil.—7.65 Gm. (118 grn.) 10% iodipin correspond to 1 Gm. (16 grn.) KI.—Yellow fluid; purely oleaginous taste.—**ACTION**: Alter.; Anticachectic. Readily absorbable, & liberates its iodine less rapidly than the alkali iodides, so that its action is sustained f. a long time; also said to be carried even to remotest parts of body.—**USES**: Both *intern.* & *extern.* in tert. syph., scrof., tabes, angina pectoris, adiposity, tubercul.

swellings, pleurisy, asthma, emphysema, arteriosclerosis, arthritis, influenza, scarlet fever, puerperal fever, &c.; hypoderm. in small doses in asthma, hay fever, gouty rheum., & bronch. & pulmon. dis.; also in idiosyncrasy to iodides.—DOSE: 4–12 cc. (1–3 fl. dr.) 3 or 4 t.p.d., in emuls. w. peppermint W. & syrup, or pure, flavored w. oil peppermint; children in proportion.—Iodipin is also excellently adapted f. determining gastric motility.

Iodipin 20%

Iodized Vegetable Oil Merck, 20% I.—ACTION & USES: As preced., but intended more partic. f. hypoderm. use & f. inunction.—*Inj.*, 2–6 cc. (30–90 M); 10–20 cc. (2½–5 fl. dr.) ev. 2 days.—For a course of syph. "treatment" abt 250 cc. (abt 8 fl. oz.) are us'y neces.

do. 40%

Iodized Vegetable Oil Merck, 40% I.—Yellowish-brown, oily liq.; ea. cc. cont. 0.54 Gm. combined I.—*Sp. Gr.*: 1.370–1.372.—ACTION & USES: As preced., but more partic. intended f. x-ray diagnosis in bronchography, myelography, pyelography, ureterography, etc. In bronchography, 15–20 cc. are required f. ea. lung; in myelography, 2 cc.; in pyelography & ureterography of both sides, 15–20 cc.—Supplied in 25 Gm. bots & in 2 cc. ampuls.

do. Ascendens—For Myelography

A 9% Iodipin, specifically lighter than the cerebrospinal fluid, & hence rises in the latter when injected. The content of 9% iodine suffices to afford shadow pictures.—Mktd in ampules ea. cont'g 2 cc. (30 M).

do. —Tablets; in Bots of 50

Ea. = 0.05 Gm. (¾ grn.) I = 0.065 Gm. (1 grn.) KI.—USES: As of 10% Iodipin, wherever iodine medication neces., partic. in asthma, bronch., emphysema, arteriosclerosis, scrofula, & syph. Well adapted f. children.—DOSE: Adults, 2–4 tabl. 3 t.p.d.; childr. ½–2 tabl.

IODISTOL—see Thymol Iodide

Iodival

Alphamonoiodoisovalerylurea. — $(\text{CH}_3)_2\text{CH} \cdot \text{CHI} \cdot \text{CONH} \cdot \text{CONH}_2 = 270.05$.—Colorl., sltly bitter cryst.—*SOL.*: Hot W., E., A.; sltly cold W.—47% I.—*MELT.*: 180° C.—USES: As of iodides in arteriosclerosis, scrof., tert. syph., exudative processes, nervous dis., etc.—DOSE: 0.3 Gm. (5 grn.) 3 t.p.d.

IODIZED HEMOL—see Iodohemol

IODIZED VEGETABLE OIL—see Iodipin

IODMETHYLBUTANE—see *iso*-Amyl Iodide

IODMETHYLPROPANE—see *iso*-Butyl Iodide

Iodocaffeine

Caffeine-Sodium Iodide.—Wh. powd.—Abt 65% caffeine.—*SOL.*: W.; decomp. by hot W.—ACTION: Diur.; Stim.; Alter.—Exhibits comb'd physiolog. propert. of alkali iodides & caffeine;

increases systolic energy, arterial pressure, & diuresis.—USES: Mitral stenosis & o. cardiac affect., & inflammatory degenerative hepatic processes w. secondary ascites, & cardiac weakness w. stenosis.—DOSE: 0.5–3 Gm. (8–45 grn.) p. day.

Iodo-Casein

Comp'd of I w. milk casein; abt 18% I.—Yellowish-brown, alm. odorl., tastel. powd.—*SOL.*: Partially in alkalies (w. decomp'n); insol. W., acid soluts.—USES: As of inorganic iodides.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

IDOCHLOROXYQUINOLINE—see Vioform

IODODIHYDROXYPROPANE—see Alival

IODODIISOBUTYLORHTHOCRESOL—see Europhen

Iodoform Merck—U.S.P. X—Cryst.

Triiodomethane; so-called Formyl Triiodide.— $\text{CHI}_3 = 393.77$.—*Fr.* acetone or A. w. I, & Na_2CO_3 , or electrolytically.—Yellow, lustr. scales, or more or less cryst. powd.; unct. touch; strongly disagree. odor.—*SOL.*: 60 A., 10 C., 7.5 E., 80 G., 2.8 CS_2 , & 34 olive oil at 25° C., abt 16 boil. A., & alm. insol. W., U.S.P.—*MELT.*: Abt 114° C., U.S.P.—*Sp. Gr.*: Abt 2.0.—ACTION: Antisep.; Alter.; Anesth.; Antituberc.—USES: *Intern.*, w. tannin said to be better than ergotin f. pulmon. or intest. hemorrhage; scrof., liver dis.; in pulmon. tuberc., by intraven. inj. or ether. solut. cont. a little liq. paraffin; incipient phth., 5 Gm. of 10% emuls. inj. directly into lung ev. 10–14 days; artic. rheum.; also intraven. in leprosy, 0.03–0.06 Gm. (½–1 grn.) in suspens. in paraffin w. E., 2–5 t.p. week.—*Extern.*, dress. wounds & ulc.; inject. into tuberc. joints (10% oil emuls.); in tuberc. peritonitis as inunction 1:32 oil to abdomen; as iodof. wax (iodof. 3, spermaceti 2, sesame oil 2) in tuberc. bone dis., & acute & chron. osteomyelitis.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.25 Gm. (4 grn.).—*MAX. D.*: 1 Gm. (15 grn.) daily.—*ANTID.*: Emetics, NaHCO_3 , KBr, $\text{KC}_2\text{H}_3\text{O}_2$, chloral hydrate, morphine (subcut.). Iodof.-ecz. (chronic poison.) of the hands treat by drying frequently in W. as hot as can be borne. Where wounds are unfavorably affected by iodof., remove the latter fr. wound surface, & apply calcined magnesia.—*INCOMP.*: HgCl , HgO , AgNO_3 , tannin, balsam Peru (directly mixed).—*CAUT.*: Keep well stoppered.

do. Aromatized Merck—N.F. IV

"Deodorized" Iodoform.—4% coumarin.

do. Bituminized

Transluc. scales; faint, tar-like odor.—ACTION, USES, &c.: As of iodoform, pure.

IDOFORM, "DEODORIZED"—see Iodoform, Aromatized

Iodoformal

$\text{C}_6\text{H}_{12}\text{N} \cdot \text{C}_2\text{H}_5\text{I} \cdot \text{CHI}_3 = 648.89$.—Lemon-yellow, odorl. powd.—*SOL.*: Eas. boil. A.; diffc. cold A.;

insol. W., E.—ACTION: Antisep.—USES: As of iodof. in purulent wounds, chron. ulcer of leg, chron. gonorr., &c.

Iodochemol

Iodized Hemol Merck.—Hemol w. 16% I in organic comb'n.—Brown, insol. powd.—ACTION: Alterative; Hematinic; succed. f. pot. iodide internally.—USES: Tert. syph., chron. lead poison., scrof., asthma, psoriasis, &c.—DOSE: 0.2–0.6 Gm. (3–10 grn.) in pills, 3 t.p.d.

IODOHYDROMOL—see Thymol Iodide

Iodol—U.S.P. VIII

Tetraiodopyrrol; Pyrrol Tetriodide; Iodopyrrole (B.P.C.).— C_4I_4NH = 570.72.—Fr. pyrrol by I & alkali.—v. light, fine, grayish-brown powd., or yellowish-gray cryst. powd.; 89% iodine.—SOL.: 4900 W., 9 A., 1.5 E., & 105 C., at 25° C., fixed oils, U.S.P. VIII; 155 G.—ACTION: Antisep.; Alter.—USES: *Intern.*, syph., scrof., & inst. of KI.—*Extern.*, 5%–10% oint. in chronic ulc., lupus, chancre, suppur. adenitis; erysip. (iodol 1, collodion 9), &c.; powd. or solut. on muc. membr. as in atrophic & syphil. ozena, tonsil. & inflam. condit. of larynx & trachea; 4 cc. (1 fl. dr.) of a 4% olive-oil solut. 3 t.p.d. by inunction in phthisis; catarrhal & blenorrhic processes in gynecol., simple & sclerotic ulcers, & condylomata, as also in adenitis, chron. ulcer of foot, scrofulous glandular discharge, & lupus; tampons satur. w. A. (16), G. (34), & iodol (1), in gynecol.—DOSE: 0.12–0.3 Gm. (2–5 grn.).—MAX. D.: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.

Iodolen

Iodine-albumin comp'd; 36% iodol.—Yellowish powd.—Insol. W.—USES: *Extern.*, like iodoform in operative surgery, sores, purulent lymphadenitis, soft chancre, &c.

IODOMETHANE—see Methyl Iodide

Iodone

$(C_6H_4C_2O_3)_2KI.I_4$ = 969.84.—Fr. phthalic anhydride by I.—Dark-green, cryst. comp'd.—Liberates abt 52% I on contact w. moisture, but mkt'd as powd. or oint. yielding 2% I.—MELT.: Abt 160° C. w. decomp.—USES: *Powd.*: *extern.*, for infected wounds, boils, ulcers, abscesses, etc.; *oint.*: for skin dis. of parasitic origin, ecz., erysip., etc.

IODOPHEN—see Nosophen

IODOPHOSPHINE—see Phosphonium Iodide

IODOPROPANE—see Propyl *iso*-Iodide, Secondary

Iodopyrine

Antipyrine Iodide; Iodantipyrine.— $C_{11}H_{11}IN_2O$ = 314.08.—Colorl. cryst.—SOL.: A., & hot W.—MELT.: 160° C.—ACTION: Antipyr.; Analg.; Alter.—USES: *Intern.*, tuberc., typhoid, bronchial asthma, cephalalgia, arteriosclerosis, struma, intercostal neuralg., herpes zoster, migraine, & tert. syph.—*Extern.*, ulcers, psoria., ecz., hemorrhoids, etc.—DOSE: 0.3–1 Gm. (5–

15 grn.).—APPL.: As powd., or as 10%–20% oint.

IODOPYRROLE—see Iodol

IDOQUININE SULPHATE—see Quinine Iodosulphate

Iodosobenzene

C_6H_5IO = 219.99.—Fr. $C_6H_5ICl_2$ by NaOH.—Yellow powd.; charact., not unpleas. odor; after contact w. the hand, the latter acquires odor like that caused by chlorinated lime.—SOL.: Sltly W.; somewh. more eas. in hot A., C., E.—CAUT.: Grad. decomp. into iodobenzene (C_6H_5I) & iodoxybenzene ($C_6H_5IO_2$), hence cannot be kept long.

IODOSOL—see Thymol Iodide

Iodostarin

Taririnic Acid Diiodide.— $CH_3.(CH_2)_{10}.CI.CI.(CH_2)_4COOH$ = 534.19.—Colorl., odorl., tastel. cryst.; 47.5% I.—SOL.: A., E., oils; insol. W.—MELT.: Abt 48.5° C.—USES: As of iodides.—DOSE: 0.25–0.75 Gm. (4–12 grn.); mkt'd in tabl. of 0.25 Gm. (4 grn.).

IODOTANNIN—see Acid Iodotannic

Iodothebromine

Theobromine & Sodium Iodosalicylate.—Wh. powd.; 40% theobromine, abt 22% NaI & 38% sod. salicylate.—SOL.: Hot W.—ACTION: Heart Stim.; Diur.; Alter.—USES: Chiefly in aortic insufficiency.—DOSE: 0.25–0.5 Gm. (4–8 grn.) 2–6 t.p.d.

IODOTHYMOL—see Thymol Iodide

Iodothyrene

Thyroidine.—Dry milk-sugar trituration of the active constit. of thyroid gland.—1 Gm. (15 grn.) iodothyrene cont. 0.3 Mg. ($\frac{1}{200}$ grn.) I = 1 Gm. (15 grn.) fresh gland.—Wh. or yellowish powd.—ACTION: Alter.; Antifat.—USES: Goiter, corpulency, myxedema, psoria., ecz., menstrual disturb., menorrh., rachitis, &c.—DOSES: Adults, 1–2.5 Gm. (15–40 grn.) p.d.; children. 0.3–1 Gm. (5–15 grn.) p.d.—MAX. D.: 2–4 Gm. (30–60 grn.) p.d.

IODOTIN = Tetraiodophenolphthalein-Sodium

Iodozen

Comp'd of methyl salicylate & I.—Yellowish-wh. powd.—SOL.: 2 A., 10 C., 3 E.; insol. W.—ACTION: Antisep.—APPL.: As solut. or oint.

p-Iodphenol

Phenol Iodide, Para.— $C_6H_4(OH)I$ [1:4] = 219.99.—Fr. *p*-iodaniline by HNO_2 .—Colorl. or reddish cryst.; charact. odor.—MELT.: Abt 94° C.—USES: *Extern.*, pure or w. G. in diphth., lupus, & cancer; intrauterine treatment of leucor.; indurations, uterine subinvolution, & ringworm of scalp.—CAUT.: The designation "Phenol Iodide," or more properly "Iodized Phenol," is also applied to a solut. of 1 part iodine in 4 parts phenol, used in whoop-cough, & given in doses of 1 teaspoonf. ev. 3 hrs. of a 1:60 solut.

IOD-TETRAGNOST—see Tetraiodophenolphthalein-Sodium

Ionone

A 20% alcoh. solut. of ionone, a ketone, $C_{13}H_{20}O = 192.23$, the odorous principle of violets & orris root, & obt. fr. citral.—**USES:** Perfumery.

IOSOL—see Thymol Iodide

Iothion

Diiodohydroxypropane. — $CH_2I.CHOH.CH_2I = 311.90$.—Yellowish, oily, heavy liq.; 77% I.—**SOL.:** 20 G., 1.5 olive oil; all prop. in A., B., C., E., petrolatum & lanum; insol. W. & benz. —**SP. GR.:** 2.4–2.5.—**ACTION:** Dermic.—**USES:** Syph., sycosis, ecz., trichophytosis, inguinal lymphadenitis, gonorr., epididymitis, tuberc. of bone, &c.—**APPL.:** By inunct. in 10%–50% oint. or oily solut.—**INCOMPAT.:** Alkalies.

IOOTHYMOL—see Thymol Iodide

IPADO—see Coca

Ipecac—U.S.P. X; B.P.; Fr. Cod.

Ipecacuanha; Hippo.—Dried rhizome & roots of *Cephaelis* (*Psychotria*, B.P.) *Ipecacuanha* (Brotero), A. Richard (Rio, or Brazilian, or Para ipecac), or of *C. acuminata*, Karsten (Cartagena, or Panama, ipecac), *Rubiaceae*; not less than 1.75% E.-sol. alkaloids, U.S.P.; not less than 2%, B.P.—**HABIT.:** Brazil to Bolivia; cultiv. in India. Cartagena ipecac fr. New Granada.—**CONSTIT.:** Emetine; cephaeline; ipecacuanhic acid; psychotrine; choline; resin; sugar. Cartagena ipecac chiefly cont. cephaeline, emetine, psychotrine, & ipecacuanhic acid; (2%–3% total alkaloids, of which abt 72% emetine, abt 26% cephaeline, & abt 2% psychotrine, B.P.C.).—**ACTION:** Emetic; Expectant.; Antidysenteric; Diaphor.; Vascular Sedative.—**USES:** Emetic in poisoning, croup, &c.; bronchitis, coughs, pulmon. hemorrhage, hiccough, whoop-cough; amebic dysent., hepatitis, typhoid.—**DOSES:** *Stomachic* or *expector.*, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.); aver. dose 0.06 Gm. (1 grn.); *emetic*, 0.6–1.3 Gm. (10–20 grn.), aver. emet. dose 1 Gm. (15 grn.); in typhoid, 2 Gm. (30 grn.) in salol-coated caps., repeated on 7th & 8th day, then 1 Gm. (15 grn.).—**Alcoh. extr.**, 0.008–0.015 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.) *expector.*, & 0.1–0.15 Gm. ($\frac{1}{2}$ – $2\frac{1}{2}$ grn.) *emetic*.—**Fl' dextr.**, 0.03–1.3 cc. ($\frac{1}{2}$ –20 M) *expector.*, & 1–3 cc. (15–45 M) *emetic*.—**Hydro-alcoh. extr.**, 0.008–0.015 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.) *expector.*, & 0.1–0.15 Gm. ($\frac{1}{2}$ – $2\frac{1}{2}$ grn.) *emetic*.—**Tr.** (1:10), 0.6–1.3 cc. (10–20 M) as *expector.*—**Wine** (5%, B.P.), 0.6–2 cc. (10–30 M) as *expector.*, & 15–24 cc. (4–6 fl. dr.) as *emet.*—**Syr.**, 0.6–24 cc. (10 M–6 fl. dr.); aver. dose, *expector.*, 1 cc. (15 M), & as *emetic*, 15 cc. (4 fl. dr.).

do. De-emetized—Powder

Ipecac root freed fr. its emetic principles (emetine & cephaeline), & cont'g only ipecacuanhatic acid.—Excellent antidysenteric, perfectly free fr. the depressing action commonly

exhibited by ipecac.—**USES:** Acute dysent.—**Dose:** 1.3 Gm. (20 grn.) ev. 12 hrs.; in severe cases, ev. 6–8 hrs.—**Alcoh. extr.**, 0.25–0.5 Gm. (4–8 grn.) grad. incr., as astring. in tropical diarrh.—**Fl' dextr.**, 1.3 cc. (20 M) ev. 12 hrs. in dysentery.

IPECAC, WILD—see *Apocynum Androsaemifolium*

IPECACUANHA—see Ipecac

Ipomea—U.S.P. X

Orizaba Jalap Root; Mexican Scammony.—Dried root of *Ipomea orizabensis*, Ledanois, *Convolvulaceae*.—Yields not less than 15% total *Ipomea* resins.—**ACTION:** Active Purgative.—**Dose:** 2–4 Gm. (30–60 grn.).

Ipral

Calcium Ethylisopropylbarbiturate, or Ethylisopropylmalonylurea.— $Ca(C_2H_5.C_3H_7.C.NONHCON.CO)_2.3H_2O = 428.50$.—Wh., cryst., odorl., sltly bitter powd.—**SOL.:** Abt 40 W. at 25° C.; insol. A.—**ACTION:** Hypnot.; Sed.—**USES:** Restlessness, irritability, sleeplessness.—**Dose:** 0.12–0.25 Gm. (2–4 grn.) w. hot W., tea, or milk.

IRIDIN—see Extract Iris

Iridium Merck

Ir = 193.10; discovered in 1802 by Smithson-Tennant.—Wh., lustr., steel-like brittle metal of the Pt group.—**SP. GR.:** 22; heaviest of all the metals.—**MELT.:** Above 2000° C.—**USES:** Manuf. alloys w. Pt partic. resistant to chemical agents, hence used in manuf. vessels f. chemical operations, thermoelements, & f. pointing gold pens. It may be of interest to note that the "normal meter" & "normal kilogramme," which form the basis of the metric system, & which are preserved in Paris, consist of an alloy of 10.1% Ir and 89.8%–89.9% Pt.

do. —Powder

Iridium Black.—Black powd.—**SP. GR.:** Abt 15.8° C., in marked contrast w. that of the fused metal.—**SOL.:** Nitrohydrochloric acid, if not previously ignited.

IRIDIUM BLACK—see Iridium, Powder

Iridium Bromide

Iridium Tetrabromide; Iridic Bromide.— $IrBr_4 = 512.78$.—Deliq., brownish powd.—**SOL.:** W., A.

Iridium Chloride

Iridium Tetrachloride; Iridic Chloride.— $IrCl_4 = 334.94$.—Brownish-black, hygros. mass.—**SOL.:** Eas. in W. w. red-brown color.—**USES:** In microsc. as fixing agent, partic. f. spindles, chromosomata, & archoplasm of scrota of salamanders, using a 0.5%–2% solution w. 1% glac. acetic acid; also f. detect'g HNO_3 in presence of HNO_2 .

IRIDIUM-OSMIUM ALLOY—see Osmium-Iridium Alloy

Iridium Sesquioxide

Iridoiridic Oxide.— $\text{Ir}_2\text{O}_3 = 434.20$.—Black powd.—SOL.: Sltly in conc. HCl .—USES: Decorating porcelain.

IRIDIUM TETRABROMIDE—see Iridium Bromide

IRIDIUM TETRACHLORIDE—see Iridium Chloride

Iridium & Ammonium Sesquibromide

Ammonium Iridobromide.— $\text{Ir}_2\text{Br}_6 \cdot 6\text{NH}_4\text{Br} + \text{H}_2\text{O} = 1471.50$.—Green, cryst. powd.—SOL.: W.

Iridium & Potassium Chloride

Potassium Iridochloride; Potassium Chloriridate.— $\text{IrCl}_4 \cdot 2\text{KCl} = 484.06$.—Dark-red cryst.—SOL.: Hot W.—USES: *Techn.*, black pigment for porcelain.

Iridium & Sodium Chloride

Sodium Iridichloride or Chloriridate.— $\text{IrCl}_4 \cdot 2\text{NaCl} + 6\text{H}_2\text{O} = 559.96$.—Brownish-black cryst.—SOL.: W.

IRIDOIRIDIC OXIDE—see Iridium Sesquioxide

Iris—N.F. V; B.P.C.

Blue Flag; Flag Lily; Poison Flag; Water Flag.—Dried rhizome of *Iris versicolor*, L., or *I. caroliniana*, Watson, *Iridaceæ*.—HABIT.: North America.—CONSTIT.: Iridin (resinoid); isophthalic acid; camphoraceous substage; gum; tannin; sugar; oil.—ACTION: Cholagogue; Cathart.; Diuret.; Emet.; Alter.—USES: Jaundice, liver dis., constip., dropsy; large doses emetic.—DOSE: 0.3–2 Gm. (5–30 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.06–0.2 Gm. (1–3 grn.).—Fl'dextr., 0.3–2 cc. (5–30 M).

IRISH BROOM—see *Scoparius*

IRISH MOSS—see *Chondrus*

Iron—By Electrolysis

Fe = 55.84.—Alm. perf. pure Fe.—SP. GR.: 7.86.—MELT.: 1510°C .—BOIL.: Abt 2450°C .—USES: Chem. analysis.

Iron Merck—By Hydrogen—Reagent

Reduced Iron.—Fe = 55.84.—Fine, gray powd.—SOL.: Dil. acids; insol. W.

MAXIMUM OF IMPURITIES

Substcs Insol. in H_2SO_4	0.500%
Water-sol. Matter.....	0.050%
Nitrogen (N).....	0.003%
Sulphide (S).....	0.010%
Arsenic (As).....	0.0015%

USES: With Zn-dust f. detect'g & determ'g NO_3 by reduct'n to NH_3 .

Iron Merck—By Hydrogen—Gray, U.S.P. X

Reduced Iron; Quevenne's Iron.—90% Fe.—Fine, grayish-black, lusterl., odorl., tastel. powd.—ACTION: Tonic; Chalybeate.—USES: Anemia, chlorosis, hysteria, scrofula, debility, etc.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.06 Gm. (1 grn.).

do. Merck—Filings (Coarse Powd.)

do. Merck—Fine Powd.

"Alcoholized" Iron, *i.e.*, iron finely pulverized.—Gray or alm. black powd.—USES: Chlorosis, anemia, &c.—DOSE: 0.1–1 Gm. ($1\frac{1}{2}$ –15 grn.) sev'l t.p.d.—VETER. MED., in osteomalacia, rachitis, & blood diseases. *Horses & cattle* 1–5 Gm. (15–75 grn.); *sheep & pigs*, 0.5–1 Gm. (8–15 grn.); *dogs*, 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.).

Iron Acetate Merck—Basic

Approx. $\text{FeOH}(\text{CH}_3\text{COOH})_2 = 190.92$.—Brownish-red scales or powd.; faint acetic odor.—SOL.: Acids; insol. W.—ACTION: Tonic; Chalybeate.—USES: Chlorosis, anem.; pneumon. & bronchopneumon.; also in testing f. nitrobenzene (Béchamp), HCl (Ewald), free acids (Mohr), & albumin (Palm); also techn. f. impregnating wood, dyeing black & violet, dyeing & weighting silk, manuf. hats, etc.—DOSE: 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.

do. —Solution, Sp. Gr.: 1.16 = 20°Bé .
—N.F. IV

Abt 31% anhydr. ferric acetate, $\text{Fe}(\text{C}_2\text{H}_3\text{O}_2)_3 = \text{abt } 7.5\%$ iron.—Dark, reddish-brown liq.; sweetish, acid, styptic taste.—MISC.: W.—ACTION: Tonic; Chalyb.; Astring.—USES: Anemia, chlorosis, & during convalesc. fr. wasting dis.—DOSE: 0.12–0.6 cc. (2–10 M).—CAUT.: Keep dark & well stop'd.

Iron Albuminated Merck—Powd., 5% Fe_2O_3

Albuminized Iron; "Iron Albuminate."—Brown, stable powd.—SOL.: W. w. turbid.—ACTION: Tonic; Hematinic.—USES: Chlorosis; Japanese remedy in beriberi.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

do. Merck—Scales, 5% Fe_2O_3

Brown scales.—SOL.: Part. W.—ACTION: Tonic Hematinic.—USES: v. assimilable iron prep.; not acid, astring., or injur. to teeth.—DOSE: 0.2–1.5 Gm. (3–23 grn.).

do. —Soluble—Scales

Ferric albuminate w. sodium citrate.—Reddish-brown scales; cont. abt 10% Fe.—SOL.: W.—ACTION & USES: As of the preced'g.—DOSE: 0.1–0.5 Gm. ($1\frac{1}{2}$ –8 grn.).

do. —N.F. V, abt 24.3%–27% Fe_2O_3

17%–19% Fe.—Reddish-brown lustrous granules or brown powd.—SOL.: Freely in W.; alm. insol. A.—ACTION & USES: As of Iron Albuminate Scales.—DOSE: Aver., 0.5 Gm. (8 grn.).

do. —Powd.—B.P.C., abt 15% Fe_2O_3

Brown powd.—SOL.: Dil. acids & alkalis; insol. W.—ACTION: Tonic, Hematinic.—USES: As preced.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

do. Peptonized

Peptonized Ferric Albuminate.—Light-brown powd.; cont. 13%–14% Fe = 18.6%–20% Fe_2O_3 .—SOL.: Part. W.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

IRON ALGINATE—see *Algiron*

IRON AMMONIATED—see Ammonium Chloride Ferrated

IRON AMMONIOBOROCITRATE—see Iron & Ammonium Borocitrate, Ferric

IRON AMMONIOBROMIDE—see Iron & Ammonium Bromide, Ferrous

IRON AMMONIOCHLORIDE—see Ammonium Chloride Ferrated

IRON AMMONIOCHROMATE—see Iron & Ammonium Chromate, Ferric

IRON AMMONIOCITRATE—see Iron & Ammonium Citrate, Ferric

IRON AMMONIO-OXALATE—see Iron & Ammonium Oxalate, Ferric

Iron Arsenated Merck

"Iron Arsenate" ($\text{Fe}_3[\text{AsO}_4]_2 \cdot 6\text{H}_2\text{O}$, abt 10%); contains some ferric iron.—Greenish or yellowish brown, amorph. powd.—SOL.: Dil. warm HCl; insol. W.—ACTION: Hemat.; Alter.—USES: Chronic skin dis.; ecz., impet., lepra, psoria., &c.—DOSE: 0.004–0.015 Gm. ($1/15$ – $1/4$ grn.).—APPL.: As 1%–5% oint.

Iron Arsenite Merck—Ferric

*Brownish-yellow, odorl. powd.; variable composition.—SOL.: in acids; insol. W.

IRON ARSENITE, SOLUBLE—see Iron Arsenite with Ammon. Citrate

Iron Arsenite with Ammonium Citrate Merck—Ferric—Soluble

Soluble Iron Arsenite; Iron Citroarsenite Ammoniated, B.P.C.—Green odorl. scales; abt 1.4% As_2O_3 & 15%–18% Fe.—SOL.: v. eas. W.—ACTION: Hematinic.—USES: Partic. indicated in anemia complicated w. malaria; also in pernicious anemia, & espec. in pellagra.—DOSE: 0.03–0.07 Gm. ($1/2$ – $1/2$ grn.).—*Inj.*, *subcut.*, in malaria in children, 0.03 Gm. ($1/2$ grn.) diss. in 1 cc. (15 M) water ev. 2–3 days; in pellagra, a like dose is injected daily at first, then ev. o. day. The injections should be made in the gluteal region in order to avoid unpleas. byeffects.—MAX. D.: Adults, 0.06 Gm. (1 grn.) p. day.

IRON ARSENOPARANUCLEINATE—see Arseno-Tri-ferrin

Iron Benzoate Merck—Ferric

$\text{Fe}_2(\text{C}_7\text{H}_5\text{O}_2)_6 = 838.13$ + aq.—Brown powd.—SOL.: Slowly in warm E. & warm cod-liver oil (up to 1%); insol. W.—DOSE: 0.1–0.2 Gm. ($1/2$ –3 grn.).

IRON BICHROMATE—see Iron Dichromate

Iron Bromide Merck—Ferric

Iron Tri- or Sesqui-bromide.— $\text{FeBr}_3 = 295.60$.—Reddish-brown, deliques., unstable cryst.—SOL.: Eas. W., A., E.—USES: Scrofula, chlorosis, amenor., phthisis, leucor., glandular enlargem., &c.; exhibits in high degree the Br action.—DOSE: 0.02–0.06 Gm. ($1/3$ –1 grn.) sev'l t.p.d.—MAX. D.: 0.1 Gm. ($1/2$ grn.) single; 0.5 Gm. (8 grn.) daily.—CAUT.: Keep well stoppered & fr. light.

Iron Bromide Merck—Ferrous

$\text{FeBr}_2 = 215.68$ + aq.—Reddish, hygrosc. cryst. powd.—SOL.: W. (usually incompletely); A.—USES: Scroful., amenor., phth., leucor., & glandular enlargements.—DOSE: 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.—CAUT.: Keep well stoppered, & fr. light.

do. Saccharated

Ferrous bromide & sacchar. ferric oxide.—Deliq., reddish-brown powd.—SOL.: W.—USES: As the preced'g.—DOSE: 0.2–1 Gm. (3–15 grn.) sev'l t.p.d.—CAUT.: Keep dry.

Iron Bromiodide

Ferric bromide & iodide.—Deliq., violet-black, gran. mass.—SOL.: W. w. part. decomp.—ACTION: Alter.; Tonic; Chalyb.—DOSE: 0.03–0.12 Gm. ($1/2$ –2 grn.).—CAUT.: Keep dry, fr. air.

Iron Cacodylate Merck—Ferric

$\text{Fe}[(\text{CH}_3)_2\text{AsO}_2]_3 = 466.89$.—Yellowish, amorph. powd.—SOL.: 15 W.; alm. insol. A.—ACTION: Alter.; Antichlorot.—USES: Anemia, chlorosis, various types of lymphadenitis & leukemia in which As is indicated.—DOSE: 0.05–0.3 Gm. ($3/4$ –5 grn.) in aqu. solut. p. d.; *subcut.*, 0.03–0.1 Gm. ($1/2$ – $1/2$ grn.) p.d.—VETER. MED., in foot- & mouth dis. in *cattle*, up to 3 Gm. (45 grn.) by *inj.* in 1%–2% aqu. solut.; sucking *calves*, 0.5 Gm. (8 grn.).

IRON CARBAZOTATE—see Iron Picrate

Iron Carbonate Merck—Saccharated—U.S.P. X

Freshly precip. FeCO_3 protected fr. oxid'n by sugar; not less than 15% FeCO_3 (115.84) = 7.23% Fe.—Greenish-brown, sweet powd.—SOL.: Part. W.; compl. sol. in mineral acids.—ACTION: Chalyb.; Tonic.—DOSE: 0.2–2 Gm. (3–30 grn.); aver. dose 0.25 Gm. (4 grn.).

do. —Saccharated—B.P.

Not less than 50% Fe salts as FeCO_3 .—DOSE: 0.6–2 Gm. (10–30 grn.).

"IRON CARBONATE, PRECIPITATED"—see Iron Oxide, Brown, Technical

Iron Chloride Merck—Ferric—Reagent—Free fr. Phosphorus

$\text{FeCl}_3 + 6\text{H}_2\text{O} = 270.32$.—Brownish-yellow, v. deliques., cryst. mass.—SOL.: Less than 1 W.; eas. A., & also in E.—MELT.: 37°C .

MAXIMUM OF IMPURITIES

Insol. Matter.	0.000%
Free Chlorine (Cl)	0.001%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.002%
Arsenic (As)	0.001%
Ferrous Salt (Fe'')	0.002%
Phosphorus Comp'ds (P)	0.000%
Alkali & Calcium	0.024%
Zinc (Zn)	0.002%
Copper (Cu)	0.005%

USES: Detecting some organic acids; in analysis

f. eliminating phosphates; in volumet. determ'n of Sn & F; detect'g tannin, cyanides, ferrocyanides & sulphocyanides, & iodides; different. betw. α & β naphthols (Frisch), & as reagent. f. melanin (Adler; Jaksch), emetine (Allen & Scott-Smith; Lowin), cystine (Andreassch), aloes (Apéry), colchicine (Autenrieth; Hertel), glycerin (Barbsche), salicylsulphonic acid (Barral), bile (Bartley), pentoses (Bial), toluidine (Biehringer), oxybutyric acid (Black), lactic acid (Boas; Bourcet; Kelling; Kühl), pyrocatechin (Brieger; Ebstein-Müller), H_2S (Caro; Lauth), abstrastol (Carpené), sulphhydrates (Claesson), chlorogenic acid (Charaux; Gorter), tartar emetic (Claus), kairin (Cohn; Schweissinger), antipyrine (Cohn; Flückiger; Knorr), salvarsan (Denigès-Labat), volatil. oils (Dragendorff; Hirschsohn), glyocoll (Engel), *p*-phenylenediamine (Erdmann; Kreis), formaldehyde (Eury; Lindet), naphthols (Flückiger), acetoacetic acid (Gerhardt; Jastrowitz; Mayer; Mörner), alkaloids (Godeffroy; Lindo), salicylic acid (Griggi; Itallie), albumin (Haslam; Kwilecki), strophanthin (Helbing), protocatechuic acid (Hesse), HCN (Ittner), free acids (de Jager), veronal (Jorissen), vanillin (Kahn), digitalis bodies (Keller), morphine (Kieffer; Otto; Robinet; Schaer), colchicine (Kremel), digitalin (Lafon), indican (Lavalle; Obermayer), saccharin (Leys), santonin (Lindo), glucose (Löwenthal), phenacetin (Lüttke), cholesterin (Mayer), cyttisin (v. d. Moer), bile pigments (Obermayer), phenolsulphonic acids (Obermiller), wine coloring matter (Philipp), dextrin (Roussin), apomorphine (Schmidt), H_2O_2 (Schönbein), acetic acid (Storch), methyl alcohol, (Vorisek), & embelic acid (Warden).

Iron Chloride Merck—Ferric—C.P.—Cryst.

Iron Tri-, Per-, or Sesqui-, Chloride.— $FeCl_3 \cdot 6H_2O = 270.32$.—Brownish yellow, v. deliquescent. cryst. mass or lumps; 20% Fe.—SOL.: Less than 1 W.; eas. A.

MAXIMUM OF IMPURITIES

Insol. Matter	0.000%
Nitrate (N_2O_5)	0.020%
Sulphate (SO_3)	0.020%
Alkali & Calcium	0.100%
Copper (Cu)	0.005%
Ferrous Salt (Fe^{II})	0.003%
Zinc (Zn)	0.010%

USES: As of the Reagent, above.

do. Merck—Ferric—U.S.P. X—Cryst.

Very deliq., orange-yellow, cryst. lumps; astring., chalyb. taste; not less than 20% Fe.—SOL.: 0.2 W. at 25° C., freely A., & also sol. in E., G.—MELT.: Abt 37° C.; 35.5° C., U.S.P.—ACTION: Styptic; Tonic; Astring.—USES: Intern., usually as tincture (*q.v.*).—Extern., in solut. occasionally as styptic & caustic (styptic collodion, 1:9); us'y, however, in form of solut.; also pharmaceutical, & techn. in photoengraving.—DOSE: Average, 0.06 Gm. (1 grn.).

do. Merck—Sublimed, Anhydrous

Flores Martis.—Black-brown, v. deliq., sm. cryst.; metal luster.—SOL.: Very eas. W., A., w. decided evolnt. of heat; also v. eas. solub. in E.

do. Merck—Technical—Cryst.

USES: Techn., as oxidizer in manuf. dyes & intermediates; manuf. pigments; as catalyst in chlorination of organic comp'ds; in photogravure & heliogravure processes; purify'g factory effluents & deodoriz'g sewage; photography; manuf. iron scale salts; chlorination of Ag & Cu ores; as mordant in dyeing & printing textiles.

do. Merck—Solution, U.S.P. X

10%–11% Fe = abt 29% anhyd. $FeCl_3$.—Reddish-brown liq.; styp. taste; cont. 3%–5% free HCl.—MISC.: W., A.—SP. GR.: 1.29–1.32 at 25° C.—ACTION: Astring.; Tonic; Styptic; Caust.—USES: Chlorosis, anemia & wasting dis.; us'y as tincture. Styptic in post-partum hemorrhage; 4–30 cc. (1–8 fl. dr.) to 500 cc. (abt 1 pint) W. & injected; brush applic. in dipth. (1:1 W.); sweating feet (3:1 G.); enema (1:200); also as hemostat. (diluted w. W.) in nose-bleed, wash, etc.; in intestin. hemorrhage, 5–10 drops well dil. w. W.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose 0.1 cc. (1½ M).

do. —Solution, B.P.

Mixt. of 1 vol. B.P. strong solut. $FeCl_3$ w. 3 W.—Clear, liq.—SP. GR.: 1.11 at 15.5° C.—USES: As of preced'g.—DOSE: 0.3–1 cc. (5–15 M).

do. —Strong Solution—B.P.

Orange-brown solut.—20% w/v Fe.—SP. GR.: Abt 1.49 at 15.5° C.—ACTION: Loc. Styptic.—USES: Highly diluted in hemorrhage.

Iron Chloride Merck—Ferrous—C.P.

Iron Di-, or Proto-, Chloride.— $FeCl_2 + 4H_2O = 198.82$.—Pale green, deliquescent. cryst. or powd.—SOL.: Abt 1 W. acidul. w. HCl; also in A.

MAXIMUM OF IMPURITIES

Oxychloride	Small amt
Sulphate (SO_3)	0.008%
Alkali Salts	0.090%
Arsenic (As)	0.0015%
Copper (Cu)	0.030%
Zinc (Zn)	0.008%

USES: Chem., as reducer in inorgan. analysis; in gastrometric determ. of nitrates; reagent. f. tartaric acid (Fenton), HNO_3 (Schulze).—Medic., Intern., chalyb.—Extern., astring., gargle, 2%–5%—DOSE: 0.06–0.2 Gm. (1–3 grn.).

do. Merck—Ferrous

Pale-green, cryst. powd.—SOL.: v. eas. W.; clear solut. in W. w. a few drops HCl.—USES: Techn., as mordant in printing fabrics; in dyeing; in metallurgy f. extract. Cu.

Iron Chromate—Ferric, Basic

Approx. $Fe_2(CrO_4)_3 \cdot 2Fe_2O_3 = 779.04$.—Reddish-brown powd. or granules.—SOL.: Dil. acids; decomp'd by W.

do. —Ferric—Yellow, Precipitated

Siderin Yellow.— $Fe_2O_3 \cdot CrO_3 = 259.68$.—Yellow powd.—SOL.: HCl; insol. W.—USES: Pigment in paints, varnishes, & water colors, & f. ceramics (partic. porcelain).

Iron Chromate—Liquid

Ferric chromate, $\text{Fe}_2(\text{CrO}_4)_3 = 439.68 + \text{aq.}$ —
Dark-brown liq.—MISC.: W.

Iron Citrate Merck—Ferric—U.S.P. VIII—Scales

Approx.: $\text{FeC}_6\text{H}_5\text{O}_7 + 3\text{H}_2\text{O} = 298.96$.—Not less than 16% Fe.—Garnet red, transpar., odorl. scales.—SOL.: Slowly but compl. in W. at 25° C.; eas. hot W.; insol. A.—ACTION: Tonic; Astring.; Chalybeate.—USES: Anemia & chlorosis.—DOSE: 0.2–0.6 Gm. (3–10 grn.); aver. dose 0.25 Gm. (4 grn.).—*Subcut.*, 0.1 Gm. (1½ grn.) in 1 cc. (15 M) water.—VETER. MED., dogs, 0.1–0.6 Gm. (1½–10 grn.).—CAUT.: Keep fr. light.

do. Merck—Ferric—U.S.P. VIII—Powd.

USES & DOSES: As of the preced'g.

do. —Effervescent, White

Mixt. iron citrate w. an acid & a carbonate.—Grayish-wh., or yellow granules.—SOL.: W. w. effervesc.—USES: Chalyb.—DOSE: 0.3–1 Gm. (5–15 grn.).

IRON CITRATE, SOLUBLE—see Iron & Ammonium Citrate

IRON CITROARSENITE AMMONIATED—see Iron Arsenite with Ammonium Citrate

IRON CITROCHLORIDE TINCTURE—see Tincture Iron Citrochloride

IRON "CYANIDE," INSOLUBLE—see Iron Ferrocyanide, Ferric, Insoluble

IRON "CYANIDE," SOLUBLE—see Iron Ferrocyanide, Soluble

Iron Dialyzed Merck—Scales

Dark-brown scales; 45%–50% Fe.—USES: As of the following.—DOSE: 0.03–0.6 Gm. (½–10 grn.).

do. Merck—Liquid—5% Fe_2O_3

Solut. of basic ferric chloride.—Dark-red liq.; abt 3.5% Fe = abt 5% Fe_2O_3 .—MISC.: W.—SP. GR.: Abt 1.047 at 15.5° C.—ACTION: Tonic; Astring.; Hemost.—USES: Chlorosis, anemia, hemorrhage, cholera, diar., gonorr., leucor., wounds, &c.; also as arsenic antid.—DOSE: 0.6–2 cc. (10–30 M).

do. Merck—Liquid—10% Fe_2O_3

IRON DICHLORIDE—see Iron Chloride, Ferrous

Iron Dichromate

Ferric Bichromate; Acid Iron Chromate.— $\text{Fe}_2(\text{Cr}_2\text{O}_7)_3 = 759.68$.—Reddish-brown granules.—SOL.: W.—USES: Techn., w. acacia & glue as water- & oil-color, & w. water-glass as pigment f. cement paint; also w. ultramarine as green pigment.

IRON ETHIOPS—see Iron Oxide, Black

Iron Ferrocyanide Merck—Ferric—Insoluble

Berlin, or Prussian, Blue; Insoluble Iron "Cyanide."— $\text{Fe}_4[\text{Fe}(\text{CN})_6]_3 = 1039.26 + 20\% - 30\% \text{ aq.}$ —Contains some $\text{K}_4\text{Fe}(\text{CN})_6$.—Dark-blue powd. or lumps.—Insol. W. & dil. acids.—ACTION: Tonic; Antiper.; Cholag.—USES: *Inter.*,

intern., said to act well in *intern.* & remit. fevers; epilep., chlorosis, dysentery, where quinine fails.—*Extern.* as 10%–20% oint. f. ulcers, chron. conjunctivitis, cancer, etc.—*Techn.*, in more or less pure form as Prussian-, Berlin-, Paris-, or Mineral-Blue, in water- or oil-colors, & printing fabrics; in oxalic-acid solut. as ink & wash-blue.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

do. Merck—Soluble

Potassium Ferriferrocyanide; Soluble Berlin, or Prussian, Blue; Soluble Iron "Cyanide."—Mostly $\text{KFe}(\text{Fe}(\text{CN})_6) + \text{aq.}$ & w. some $\text{K}_4\text{Fe}(\text{CN})_6$.—SOL.: W.—USES: *Techn.*, blue pigment & dye; stain'g anatomical specimens.

Iron Fluoride—Ferric

$\text{FeF}_3 = 112.84$.—Red, cryst. powd.—SOL.: Acids; insol. W.—USES: Manuf. porcelains, pottery, etc.

do. Merck—Ferrous

$\text{FeF}_2 = 93.84$.—Light-red, cryst. powd.—SOL.: Dil. acids.—USES: As of HF in hepatic hypertrophy.—DOSE: 0.003–0.03 Gm. ($\frac{1}{200}$ – $\frac{1}{2}$ grn.).

Iron Formate—Ferric

$\text{Fe}(\text{HCO}_2)_3 = 190.88$.—Cryst., red powd.—SOL.: W.; v. sltly A.—ACTION: Tonic.—DOSE: 0.1–0.5 Gm. (1½–8 grn.).

IRON GALLOTANNATE—see Iron Tannate, Ferric

IRON GLANCE—see Hematite

Iron Glycerophosphate Merck—Ferric—N.F. V—Scales or Powder

14%–16% Fe in form of $\text{Fe}_2(\text{C}_3\text{H}_5[\text{OH}]_2.\text{OPO}_3)_3 = 622.01$.—Yellowish-green scales or powd.—SOL.: Slowly in 2 W. at 25° C., & insol. A.—ACTION: Tonic; Nervine.—USES: Deficient nerve nutrition, neurasth., anemia, chlorosis, Addison's dis., phosphaturia, convalesc. fr. influenza, beriberi, &c.—DOSE: 0.12–0.3 Gm. (2–5 grn.) 3 t.p.d.; aver. dose 0.2 Gm. (3 grn.).—*Subcut.*, 0.03 Gm. (½ grn.).

Iron Hydroxide Merck—Ferric—Pure, Dried

Iron Oxide Brown; Hydrated Iron Oxide, or Sesquioxide; "Crocus Martis."— $\text{Fe}(\text{OH})_3 = 106.86$.—Brown powd.—SOL.: Acids; insol. W.—USES: *Intern.*, as mild chalybeate; freshly pptd as antidote f. arsenic.—*Techn.*, in manuf. rubber, as pigment, & as absorbent f. gases; in polishing pastes & powders, etc.—DOSE: 0.2–1 Gm. (3–15 grn.) sev'l t.p.d.

Iron Hypophosphite Merck—Ferric—N.F. V

$\text{Fe}(\text{H}_2\text{PO}_2)_3 = 251.01$.—Wh., or grayish-wh. powd.; cont's abt 21.8% Fe.—SOL.: Warm, conc. solut. of alkali citrate; 2300 W. at 25° C., 1200 boil. W., more eas. in presence of H_3PO_2 .—ACTION: Tonic; Chalyb.—USES: Us'y w. o. remed., in tubercul. & rachitis.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.2 Gm. (3 grn.).—CAUT.: Keep dark & well stoppered.

Iron Iodate—Ferric

$\text{Fe}_2\text{O}_3.2\text{I}_2\text{O}_5 + 8\text{H}_2\text{O} = 971.49$.—Reddish to brownish powd.—SOL.: Dil. HNO_3 ; alm. insol. W.—ACTION: Alter.; Tonic.—USES: Scrof.—DOSE: 0.12–0.3 Gm. (2–5 grn.) sev'l t.p.d.

Iron Iodide—Ferrous—Lumps

Iron Protoiodide.— $\text{FeI}_2 = 309.68 + \text{abt } 3\text{H}_2\text{O}$.—Cryst., grayish-blue, hygrosc. masses.—SOL.: W., w. part. decomp.—ACTION: Alter.; Tonic.—USES: Scrofula, chlorosis, etc.—DOSE: 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.).

do. Merck—Saccharated

Abt 20% FeI_2 .—Yellowish-wh., or grayish, hygrosc. powd.—SOL.: 7 W. (alm. clear solut.) w. some decomp.—ACTION: Alter.; Tonic.—USES: Anemia, chlorosis, scrof., debil., &c.—DOSE: 0.12–1 Gm. (2–15 grn.) sev'l t.p.d.—CAUT.: Keep dark, cool, & well stoppered.

do. Merck—Syrup—U.S.P. X

Abt 5% FeI_2 by wt.—Sp. Gr.: Abt 1.37 at 25° C.—ACTION: Alter.; Tonic.—USES: Scrof. affect., tubercul., leucocythemia, chlorosis, anemia, chronic rheum., &c.—DOSE: 0.3–4 cc. (5–60 M); aver. dose 1 cc. (15 M).—CAUT.: Keep in sm., well-stoppered & filled bts exposed to sunlight.

Iron Lactate Merck—Ferrous—N.F. V—Powd. or Cryst.

$\text{Fe}(\text{C}_3\text{H}_5\text{O}_3)_2 + 3\text{H}_2\text{O} = 288.00$.—Greenish-wh. powd. or crusts.—SOL.: 40 W.; 12 boil. W.; alkali citrate solut.; alm. insol. A.—ACTION: Tonic; Alter.; Chalyb.—USES: Chlorosis, anemia, &c., where iron indic.—DOSE: 0.12–0.6 Gm. (2–10 grn.) sev'l t.p.d.; aver. dose 0.3 Gm. (5 grn.).—CAUT.: Keep fr. air & light (becomes darker & insol. W.).

Iron Lactocitrate—Ferrous

Ferrous Lactate w. Ferric Citrate.—Abt 20% Fe.—Brownish powd.—SOL.: Part. in W.—USES & DOSE: As of iron citrate.

Iron "Lactophosphate" Merck

56% ferrous lactate & 44% ferric phosphate.—Greenish-wh. powd.—SOL.: In acidul. W.—USES, DOSE, &c.: As of iron lactate.

IRON-LITHIUM MICA—see Zinnwaldite

Iron Malate Merck—Ferric

$\text{Fe}_2(\text{C}_4\text{H}_4\text{O}_5)_3 = 507.84$.—Brown, hygrosc. scales.—SOL.: Slowly W., A.; solut. facilitated by add'g eq. part ammon. citrate.—ACTION: Tonic; Astring.—USES: Mild chalyb.—DOSE: 0.12–0.6 Gm. (2–10 grn.) sev'l t.p.d.—Aver. D.: 0.3 Gm. (5 grn.).—CAUT.: Keep well stoppered.

IRON MALATE, CRUDE—see Extract Apple, Fermented

Iron Monomethylarsenate

$\text{Fe}_2(\text{CH}_3\text{AsO}_3)_3 = 525.65$.—Reddish-brown, lustr. scales; abt 21.2% Fe, & abt 42.8% As.—SOL.: 2 W.; insol. A., E.—ACTION: Hemat.—USES: Anemia, chlorosis, nerv. affections, leucemia.—DOSE: 0.02–0.05 Gm. ($\frac{1}{3}$ – $\frac{3}{4}$ grn.).

IRON MONOSULPHIDE—see Iron Sulphide

Iron Nitrate Merck—Ferric—Reagent

$\text{Fe}(\text{NO}_3)_3 + 9\text{H}_2\text{O} = 404.01$.—Grayish-wh. to pale violet, somewh. deliques. cryst.—SOL.: Eas. W.; A.—MELT.: 45°–50° C.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.0005%
Sulphate (SO_3).....	0.010%
Alkali Salts.....	0.10%
Copper (Cu).....	0.003%
Ferrous Salts (Fe'').....	0.003%
Manganese (Mn).....	0.000%
Zinc (Zn).....	0.003%

Iron Nitrate Merck—Ferric—C.P.

$\text{Fe}(\text{NO}_3)_3 + 9\text{H}_2\text{O} = 404.01$.—Grayish-wh. to pale-violet, somewhat deliques. cryst.—SOL.: v. eas. W.; A.—MELT.: 45°–50° C.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Sulphate (SO_3).....	0.020%
Copper (Cu).....	0.005%
Ferrous Salts (Fe'').....	0.003%
Zinc (Zn).....	0.005%

do. Merck—Cryst.

DESCRIPT. & SOL.: As prec'd'g.

Iron Nucleinate—Fr. Yeast

Complex salt of ferronucleic acid; its compos. corresponds to the formula 1 mol. nucleic acid w. 2 atoms Fe.—Brown powd.—SOL.: W., eas. but slowly, w. deep-brown color; insol. A., E.—USES: Anemia & chlorosis.—DOSE: 0.5 Gm. (8 grn.) p. day.

IRON NUCLEOPROTEID—see Proferrin

Iron Oleate—Ferric

$\text{Fe}(\text{C}_{18}\text{H}_{33}\text{O}_2)_3 = 899.90$.—Brownish-red, fatty lumps.—SOL.: E.—ACTION: Tonic.—USES: Extern., on wounds, ulcers, &c.—DOSE: In anemia, 0.3–1 Gm. (5–15 grn.).

Iron Oxalate Merck—Ferric—Scales

$\text{Fe}_2(\text{C}_2\text{O}_4)_3 \cdot 6\text{H}_2\text{O} = 483.81$.—Brownish-yellow scales.—SOL.: W.—Sensit. to light.—USES: Blue prints.

do. Merck—Ferrous

Iron Protoxalate.— $\text{FeC}_2\text{O}_4 + 2\text{H}_2\text{O} = 179.88$.—Pale-yellow, odorl., cryst., powd.—SOL.: Mineral acids; alm. insol. W.—ACTION: Tonic; Alter.; Chalybeate.—USES: Anemia, chlorosis, &c.—Techn., photo. developer f. silver-bromide-gelatin plates.—DOSE: 0.12–0.36 Gm. (2–6 grn.).

Iron Oxide "Black" Merck—Dry Process

Ferrosoferric Oxide; Magnetic Iron Oxide; Iron Ethiops.— $\text{Fe}_3\text{O}_4 \cdot \text{H}_2\text{O} = 249.54$.—Reddish-black, amorph. powd.—SOL.: HCl.—Action: Hematinic, &c.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

do. Merck—Wet Process (so-called)

Black powd.—USES: As of reduced iron.—DOSE: 0.3–0.6 Gm. (5–10 grn.), B.P.C.

Iron Oxide Brown Merck—Ferric—Precip., Powd.

"Iron Subcarbonate," or "Iron Carbonate Precipitated."—Cont's FeCO_3 w. $\text{Fe}(\text{OH})_3$ &

some ferrous iron.—Reddish-brown powd.—
SOL.: Acids; insol. W.—ACTION: Mild Chalybe-
ate.—DOSE: 0.2–1 Gm. (3–15 grn.).

Iron Oxide Brown Merck—Technical—Native Powd.

$\text{Fe}_2\text{O}_3 = 159.68$.—Brownish-red, heavy powd.
—SOL.: HCl by heat.

IRON OXIDE, HYDRATED, OR HYDROUS—see Iron
Hydroxide

IRON OXIDE, MAGNETIC—see Iron Oxide, Black

Iron Oxide Red Merck—Ignited

Anhydrous Ferric Oxide; Iron Trioxide; Iron
Sesquioxide; Rubigo; Ferrugo; Venetian, Stone,
or Indian, Red; Crocus Martis Adstringens.—
 $\text{Fe}_2\text{O}_3 = 159.68$.—Purplish-red powd.—SOL.:
Acids.—USES: *Medic.*, inst. of bism. subnitr. in
X-ray diagnosis.—*Techn.*, as polish. powd. f.
glass & metal; as pigment, in rubber, wall
paper & in iron paints; manuf. glass & pottery;
also manuf. prepared calamine.

do. Merck—Saccharated—N.F. V.

Soluble Iron or Ferric Oxide; Iron Saccharate;
Iron Sugar.—Mixt. of sugar w. ferric sacchar-
ate, $\text{C}_{12}\text{H}_{22}\text{O}_{11}(\text{Fe}_2\text{O}_3)_2 + \text{C}_{12}\text{H}_{22}\text{O}_{11}\text{Na}_2\text{O}$.—
Brown powd.; cont. 2.8%–3% Fe.—SOL.: W.
—ACTION: Mild Chalybeate.—USES: Antid.
f. arsenic; in chlorosis, anemia, &c.—DOSE:
0.5–2 Gm. (8–30 grn.); heaping teasp. in
arsenic poison'g at first ev. 15 min., then less
often.

IRON OXIDE, SOLUBLE—see Iron Oxide, Red,
Saccharated, Soluble

IRON PARANUCLEINATE—see Triferrin

IRON "PEPTONATE"—see Iron Peptonized

Iron Peptonized Merck—Powd.

Iron "Peptonate."—5% $\text{Fe}_2\text{O}_3 = 3.5\%$ Fe, w.
peptone.—Yellowish-brown powd.; sensit. to
light.—SOL.: Partially W., B.P.C.—USES:
Mild, eas. assimil. chalyb.—DOSE: 0.12–0.6
Gm. (2–10 grn.).

do. Merck—Scales—5% $\text{Fe}_2\text{O}_3 = 3.5\%$ Fe

Reddish-brown, deliq. scales.—Sensit. to light.
—SOL.: W.—USES: For prep. soluts.

do. Merck—N.F. V, Powd.—25% $\text{Fe}_2\text{O}_3 = 17.5\%$ Fe

Dark brown powd.—SOL.: Freely in W.; alm.
insol. A.—USES: As of preced.—DOSE: Aver.
0.3 Gm. (5 grn.).

do. —Saccharated

Eq. parts iron peptonate & sacchar. iron oxide.
—Brown powd.—SOL.: W.—USES: As of iron
peptonate, but in twice the dose.

IRON PERCHLORIDE—see Iron Chloride, Ferric,
Normal

IRON PERSULPHATE—see Iron Sulphate, Ferric

IRON "PERSULPHATE"—see Iron Sulphate, Ferric
Basic

Iron Phenolsulphonate—Ferrous

Iron Sulphocarbolate, or Sulphophenate.—
 $\text{Fe}(\text{C}_6\text{H}_4[\text{OH}]\text{SO}_3)_2 + 7\text{H}_2\text{O} = 528.27$.—Sm.,
greenish-wh. cryst.—SOL.: v. eas. W.

Iron Phosphate Merck—Ferric, True—Insoluble

$\text{Fe}(\text{PO}_4) + 4\text{H}_2\text{O} = 222.94$.—Yellowish-wh.
powd.—SOL.: Mineral acids.—USES: *Intern.*,
chlorosis, debility, & rachitis.—*Extern.*, in
solut. w. dil. phosph. acid, f. carious teeth, in
which it is introduced on cotton; oint. (10%–
20%) in carcinoma.—DOSE: 0.06–0.6 Gm.
(1–10 grn.).

do. Merck—Ferric—Soluble, U.S.P. X —Scales, Pearls, or Powd.

Iron Phosphate w. Sodium Citrate.—Transp.,
bright green scales or pearls, or yellowish powd.;
sltly acid, saline taste; darkens in light; not
less than 12% Fe.—SOL.: W.; insol. A.—
ACTION: Chalyb.; Astring.; Emmen.—USES:
Dyspep. & amenor.—DOSE: 0.12–0.6 Gm. (2–
10 grn.); aver. dose 0.25 Gm. (4 grn.).—CAUT.:
Keep fr. air & light.

Iron Phosphate Merck—Ferrous, True

$\text{Fe}_3(\text{PO}_4)_2 + 8\text{H}_2\text{O}$ w. some ferric iron.—Gray-
ish-blue powd.—SOL.: Mineral acids; insol W.
—USES: Anemia, chlorosis, rachitis.—DOSE:
0.3–0.5 Gm. (5–8 grn.) sev'l t.p.d.—CAUT.:
Keep fr. light & air.

do. —Saccharated—B.P.

Slate-blue, amorph. powd.; sweetish taste;
cont's not less than 60% Fe^{++} salts calculated
as $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$.—SOL.: HCl; part. in W.—
ACTION: Hematinic; Tonic.—USES: Anemia,
amenorrhea, rachitis, bone dis., nervous de-
pression & exhaustion, & during convalesc.—
DOSE: 0.3–0.6 Gm. (5–10 grn.).

Iron Phosphate with Ammonium Citrate—Ferric

Greenish-yellow scales; abt 15% Fe.—SOL.:
Hot W.—ACTION: Tonic; Astring.; Emmen.;
Mild Chalyb.—USES: As of o. iron salts, espec.
in dyspep. & amenor.—DOSE: 0.12–1 Gm. (2–
15 grn.) sev'l t.p.d.—CAUT.: Sensit. to light;
keep dark & fr. air.

IRON PHOSPHATE WITH SODIUM CITRATE—see
Iron Phosphate, Ferric, Soluble

Iron Phosphide

Ferrous Phosphide.— $\text{Fe}_2\text{P} = 142.72$.—Bluish-
gray powd.—SOL.: Mineral acids w. decomp'n;
insol. W.

Iron Picrate

Iron Picronitrate, or Carbazotate.—Variable
compos'n.—Greenish-yellow or reddish-brown,
hygrosc. cryst.—SOL.: W., but not clearly.—
ACTION: Tonic.—DOSE: 0.015–0.06 Gm ($\frac{1}{4}$ –1
grn.).

IRON PICRONITRATE—see Iron Picrate

IRON PLATINOCYANIDE—see Platinum & Iron
Cyanide

IRON PROTOBROMIDE—see Iron Bromide, Ferrous

IRON PROTOCHLORIDE—see Iron Chloride, Fer-
rous

IRON PROTOIODIDE—see Iron Iodide, Ferrous

IRON PROTOSULPHATE—see Iron Sulphate, Ferrous

IRON PROTOSULPHIDE—see Iron Sulphide

IRON PROTOXALATE—see Iron Oxalate, Ferrous

IRON PYRITES—see Pyrite

Iron Pyrophosphate Merck—Ferric—Precipitated—Insoluble, Powd.

$\text{Fe}_4(\text{P}_2\text{O}_7)_3 + 9\text{H}_2\text{O} = 907.74$. — Yellowish-wh. powd.; sensit. to light.—SOL.: Solut. sod. pyrophosphate, dil. HCl; insol. W.; sol. in soluts. alkali citrates.—ACTION: Mild agree. Chalyb.—USES: Chlorosis, &c. Also prepar. iron pyrophosphate-W. (0.06 Gm. w. a little sod. pyrophosphate in 200 cc. CO_2 -W.).—DOSE: 0.12–0.6 Gm. (2–10 grn.). Of W., up to 750 cc. (abt 25 fl. oz.) p.d.—CAUT.: Keep in a dark place.

do. Merck—Ferric—N.F. V—Soluble, Scales, Pearls, or Powd.

Iron Pyrophosphate w. Sod. Citrate.—Apple-green, transp. scales or pearls; also as powd.; acidulous, saline taste; sensit. to light; cont's abt 10% Fe.—SOL.: Freely in W.; insol. A.—ACTION: Tonic; Emmen.; Astring.—USES: Mild, agree., active chalyb. in chlorosis, anemia, debility, &c.—DOSE: 0.12–0.6 Gm. (2–10 grn.); aver. dose 0.25 Gm. (4 grn.); also given subcut.—CAUT.: Keep in dark.

Iron Pyrophosphate with Ammonium Citrate—Scales

Robiquet's Soluble Ferric Pyrophosphate; Ammonioferric Citrophosphate.—Yellowish-green transp. scales; sweetish, ferruginous taste; sensit. to light.—SOL.: v. eas. W.—ACTION: Tonic; Emmen.; Chalyb.—USES: As agreeable ferrug. prep.—DOSE: 0.1–0.6 Gm. (1½–10 grn.); subcut., 0.06–0.15 Gm. (1–2½ grn.). diss. in steril. W.—CAUT.: Keep in a dark place.

Iron Pyrophosphate with Ammonium & Sodium Citrates

Ferric Pyrophosphate w. Ammonium & Sodium Citrates.—Light green scales.—USES, &c.: As of iron pyrophosphate, soluble.—CAUT.: Keep in a dark place.

Iron Pyrophosphate with Magnesium Citrate

Ferric Pyrophosphate & Magnesium Citrate.—Light-green scales; sensit. to light.—SOL.: W.—USES, &c.: As of iron pyrophosphate, soluble, ferric.—CAUT.: Keep in a dark place.

Iron Pyrophosphate with Potassium Citrate

Ferric Pyrophosphate & Potassium Citrate.—Light-green scales; sensit. to light.—SOL.: W.—USES: As of iron pyrophosphate, soluble, ferric.—Subcut., like iron pyrophosphate with ammonium citrate.—CAUT.: Keep in a dark place.

IRON PYROPHOSPHATE WITH SODIUM CITRATE—see Iron Pyrophosphate Soluble

IRON, QUEVENNE'S—see Iron by Hydrogen

Iron Resinate—Ferric

Reddish-brown powd.—SOL.: E., benzin, CS_2 , oil turp.; stlty A.; insol. W.—USES: As drier f. paints, varnishes, etc.

IRON RHODANIDE—see Iron Sulphocyanate

IRON SACCHARATE—see Iron Oxide, Red, Saccharated, Soluble

Iron Salicylate—Ferric

Violet-gray powd.—SOL.: Stlty in W.—ACTION: Tonic; Antisep.; Astring.; Antirheum.—USES: Bleeding & o. wounds, diar., rheum., &c.—DOSE: 0.2–0.6 Gm. (3–10 grn.).—CAUT.: Keep in a dark place.

IRON SESQUIBROMIDE—see Iron Bromide, Ferric

IRON SESQUICHLORIDE—see Iron Chloride, Ferric

IRON SESQUIOXIDE—see Iron Oxide, Red, Ignited

IRON SESQUIOXIDE, HYDRATED—see Iron Hydroxide, Ferric

IRON SESQUISULPHATE—see Iron Sulphate, Ferric

Iron Silicate—Ferric

Light-brown powd.—Insol. W.; decomp. by HCl.

Iron Stearate—Ferric

Approx. $\text{Fe}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3 = 905.95$. — Light-brown powd.—USES: Manuf. varnishes & driers.

IRON STONE, RED—see Hematite

“IRON SUBCARBONATE”—see Iron Oxide, Brown, Technical

IRON SUBSULPHATE—see under Iron Sulphate, Ferric, Basic

Iron Succinate Merck—Ferric

Amorphous, reddish-brown powd.; variable compos'n.—SOL.: Insol. cold, partly decomp. by hot, W.; eas. in acids.—ACTION: Tonic; Alter.—USES: Biliary calculi.—DOSE: 0.6 Gm. (10 grn.) grad. incr. to 4 Gm. (60 grn.) 3 t.p.d., after meals, best w. 10 drops chloroform.—CAUT.: Keep in a dark place.

IRON SUGAR—see Iron Oxide, Red, Saccharated, Soluble

Iron Sulphate Merck—Ferric—C.P.

Iron Per-, Ter-, or Sesqui-, sulphate.— $\text{Fe}_2(\text{SO}_4)_3 = 399.86$, w. abt 5 mol. H_2O .—Grayish-wh. powd.—SOL.: Slowly in W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.010%
Alkalies & Earths.....	0.20%
Copper (Cu).....	0.005%
Ferrous Salt.....	0.05%
Zinc (Zn).....	0.01%

USES: Chem., Determ. glucose (Bertrand);

test f. As (Gautier), digitalis substcs (Kiliani), & tannin (Ruoss).

Iron Sulphate Merck—Ferric—Powd.

Uses: *Techn.*, in dyeing, manuf. Prussian blue; purif. water; etching aluminum.

do. Merck—Ferric—Solution—U.S.P. X

Solut. Iron Tersulphate.—Not less than 9.5% or over 10.5% Fe, = abt 36% $\text{Fe}_2(\text{SO}_4)_3$.—Dark-reddish-brown, strongly styp. liq.—Misc.: W., A.—SP. GR.: Abt 1.432 at 25° C.—ACTION: Astring.—Too irrit. f. general use.

do. Ferric—Solution—B.P.

"Solut. Iron Persulphate."—Dark-red liq.; v. astring. taste.—20.8% w/v Fe_2O_3 .—SP. GR.: 1.441 at 15.5° C.

Iron Sulphate Merck—Ferric, Basic

Iron Subsulphate, or "Persulphate"; Monsel's Salt.—Approx.: $\text{Fe}_4\text{O}(\text{SO}_4)_5$ = 719.66 + aq.—Yellow, hygrosc. powd.—SOL.: W.—ACTION: Astring.; Styp.—USES: *Intern.*, in gastric & intest. hemorrhage.—*Extern.*, in chancre, &c.—DOSE: 0.12–0.3 Gm. (2–5 grn.).—CAUT.: Keep dry, fr. air.

do. Merck—Solution—N.F. V

Monsel's Solution; Solution Iron Sub-, or "Per," sulphate.—Not less than 13% or over 14% Fe.—Dark, reddish-brown, strongly styptic, acid liq.—MISC.: W. A.—SP. GR.: Abt 1.548 at 25° C.—ACTION: Styp.; Astring.; Alter.—USES: *Intern.* & *extern.* in hemorrhage & chancre.—DOSE: 0.12–0.36 cc. (2–6 M); aver. dose 0.2 cc. (3 M).—NOTE: Solut. iron Tersulphate must *not* be given when Solut. Sub- or "Per" sulphate is ordered!

Iron Sulphate Merck—Ferrous—Reagent

$\text{FeSO}_4 + 7\text{H}_2\text{O}$ = 278.01.—Pale bluish-green, odorl. cryst. or granules.—SOL.: Less than 2 W.; insol. A.

MAXIMUM OF IMPURITIES

Insol. Substs.	0.000%
Chloride (Cl).....	0.000%
Alkali Salts.....	0.030%
Copper (Cu).....	0.000%
Zinc (Zn).....	0.004%
Ferric Comp'ds (Fe''')	Trace
Phosphorus Compds (P).....	0.001%

USES: Reducer in determ'g Au, MnO_2 , etc.; detect'g cyanides & ferrocyanides, acetoacetic acid, ethyl nitrite; determ. Au, Hg, Zn, & $\text{K}_3\text{Fe}(\text{CN})_6$; reag. f. tartaric acid (Fenton), gallic acid (Flückiger), As (Gautier), ethyl peroxide (Günther), HCN (Ittner; Lea), morphine & veronal (Jorissen), glucose (Marson), vanillin (Mörk), HNO_3 (Richemont; Stein; Villedieu), benzoic acid (Schmatolla), H_2O_2 (Schönbein), oxyhemoglobin blood (Stooke), embelic acid (Warden); also in oxidimetry like ferrous ammon. sulphate.

Iron Sulphate Merck—Ferrous—C.P.—Gran.

$\text{FeSO}_4 + 7\text{H}_2\text{O}$ = 278.01.—Pale, bluish-green, effloresc., odorl. cryst.; saline, astring. taste.—Oxidize on expos. to moist. air; lose 38.87%

H_2O on slowly heat'g to 115° C.—SOL.: Less than 2 W.; insol. A.

MAXIMUM OF IMPURITIES

Alkali Salts.....	0.030%
Copper (Cu).....	0.000%
Ferric Comp'ds (Fe''').....	Trace
Zinc (Zn).....	0.004%

USES: As of the Reagent, above.

do. Merck—Ferrous—U.S.P.—Cryst. or Gran.

DESCRIPTION: As preced'g.—SOL.: 1.4 W. at 25° C., 0.4 boil. W., & insol. A., U.S.P.—ACTION: Tonic; Astring.—USES: *Intern.*, anemia & chlorosis, espec. w. tendency to hemor.; night-sweats or relax'n of system.—*Extern.*, leucor., gleet, ecz., erysip., or chron. ophthal.—DOSE: 0.06–0.5 Gm. (1–8 grn.); aver. dose 0.1 Gm. ($\frac{1}{2}$ grn.).—INJ., 5%–25% aqu. solut. in blenor.; 10%–20% aqu. solut. as styptic.—APPL.: As oint. (1:30).—VETER. MED., horses & cattle, 2–5 Gm. (30–75 grn.); sheep & pigs, 0.5–1 Gm. (8–15 grn.); dogs 0.05–0.2 Gm ($\frac{3}{4}$ –3 grn.). In hemorrhages, horses 10–25 Gm. ($2\frac{1}{2}$ –6 dr.); dogs, 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.).—INCOMPAT.: Alkalies; solub. carbonates; Au & Ag salts; lead acetate; lime-water; KI & KNO_3 ; potass. & sod. tartrate; borax; tannin; vegetable astringent infusions & decoctions.—CAUT.: Keep cool & dry.

do. Merck—Ferrous—U.S.P. X—Granulated

Pale, bluish-green, cryst. powd.—SOL.: v. eas. W.; insol. A., E.—Keeps better than the cryst.—DOSE: 0.06–0.5 Gm. (1–8 grn.).

do. Merck—Ferrous—U.S.P. X—Dried

Not less than 80% (77% B.P.) anhydr. FeSO_4 .—Grayish-wh. powd.—SOL.: Slowly in W.—USES: Best form f. iron pills.—DOSE: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) sev'l t.p.d.; aver. dose 0.06 Gm. (1 grn.).

do. Merck—Ferrous—Technical—Cryst. or Powd.—95%–100%

Copperas; Green, or Iron, Vitriol; Iron Protosulphate.—Greenish crystals, often dirty & rusty fr. oxid'n & effloresc.—SOL.: 2 W.—USES: Deodor., Disinf.—*Techn.*, largely w. H_2SO_4 f. disinf. privies (500 Gm. [abt 1 lb.] suffic. f. up to 3 cub. met. [abt 4 cub. yds]); manuf. iron salts, inks, dyes, pigments, & fuming H_2SO_4 ; in dyeing & tanning; purifying water; reduction of indigo; photography; wood preserv.; fertilizer.—APPL.: For iron baths; abt. 30–45 Gm. (1– $\frac{1}{2}$ oz.).

Iron Sulphide Merck—Granular, Lumps, or Sticks

Ferrous Sulphide; Iron Monosulphide; Iron Protosulphide; Iron Sulphuret.— FeS = 87.90.—Dark-brown or black, metal-like pieces, sticks, or gran. powd.—SOL.: In acids w. evol. of H_2S .—USES: Chiefly f. prep. H_2S ; w. magnesia as antidote in poison. by metals, partic. $\text{Hg}(\text{CN})_2$.

IRON SULPHOCARBOLATE—see Iron Phenolsulphonate

Iron Sulphocyanate—Ferric

Iron Sulphocyanide, or Rhodanide.— $\text{Fe}(\text{SCN})_3 + 3\text{H}_2\text{O} = 284.11$.—Brown, gran. powd.—**SOL.**: W., A., E.

do. —Ferrous

$\text{Fe}(\text{SCN})_2 + 3\text{H}_2\text{O} = 226.03$.—Large green cryst.; rapidly become red on exposure to air; decomp. by heat.—**SOL.**: Eas. W., A., & E.

IRON SULPHOCYANIDE—see Iron Sulphocyanate, Ferric

IRON SULPHOPHENATE—see Iron Phenolsulphonate, Ferrous

IRON SULPHURET—see Iron Sulphide

Iron Tannate—Ferric

Iron Gallotannate.—Bluish-black powd.—**SOL.**: Dil. HCl; insol. W.—**ACTION**: Astring.; Tonic; Emmen.—**USES**: *Intern.*, chlorosis, &c.—*Extern.*, in ringworm in 2:10 oint.—**DOSE**: 0.5 Gm. (8 grn.) single, & up to 2 Gm. (30 grn.) p. day.

IRON TARTAR—see Iron & Potassium Tartrate, Ferrous

IRON, TARTARIZED, OR TARTRATED—see Iron & Potassium Tartrate, Ferric

Iron Tartrate Merck—Ferric

$\text{Fe}_2(\text{C}_4\text{H}_4\text{O}_6)_3 + \text{H}_2\text{O} = 573.85$.—Reddish-brown scales.—**SOL.**: Eas. W.—**ACTION**: Tonic; Emmen.—**USES**: Mild chalyb.—**DOSE**: 0.3–0.6 Gm. (5–10 grn.) sev'l t.p.d.

do. —Ferrous

$\text{FeC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O} = 221.91$.—Yellowish powd.—**SOL.**: Dil. acids; sltly W.

IRON TERSULPHATE—see Iron Sulphate, Ferric

IRON TRIBROMIDE—see Iron Bromide, Ferric

IRON TRICHLORIDE—see Iron Chloride, Ferric, Normal

IRON TRIOXIDE—see Iron Oxide, Red, Ignited

Iron Tropon

Comp'd of tropon (pure albumin) & Fe.—Brownish powd.; 2.5% Fe.—**ACTION**: Ferruginous Tonic.—**USES**: Anemia, chlorosis, debility, & in convalescence.—**DOSE**: Teasp.

Iron Valerate Merck—Ferric

Iron Valerianate.—Approx. $\text{Fe}(\text{C}_5\text{H}_9\text{O}_2)(\text{OH})_2 = 190.95$ + aq.—Amorph., brownish-red powd.; valerian odor; styptic taste.—**SOL.**: Eas. A.; insol. W.; decomp. by boil'g W., B.P.C.—**ACTION**: Tonic; Nerv.; Emmen.—**USES**: Anemia of chlorosis, w. hyst. of nerv. exhaust.; diab. insip., epilepsy, chorea, &c.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.), B.P.C.—**CAUT.**: Keep well stoppered & in the dark.

IRON VALERIANATE—see Iron Valerate, Ferric

Iron *m*-Vanadate—Ferrous

Grayish-brown powd.—**SOL.**: Acids; insol. W.—**ACTION**: Powerful Tonic.—**USES**: Chlorosis, anemia.—**DOSE**: 0.004–0.005 Gm. ($\frac{1}{15}$ – $\frac{1}{12}$ grn.) daily, ev. second day.

IRON VITRIOL—see Iron Sulphate, Ferrous

Iron & Ammonium Borocitrate—Ferric

Iron Ammoniborocitrate.—Brownish-yellow scales.—**SOL.**: Eas. W.

Iron & Ammonium Bromide—Ferrous

Iron Ammonibromide.—Approx.: $\text{FeBr}_2 + 2\text{NH}_4\text{Br} = 411.60$.—Reddish to brownish powd.—**SOL.**: W.—**CAUT.**: Keep well stopp'd.

Iron & Ammonium Chromate—Ferric

Iron Ammoniochromate.— $(\text{NH}_4)_2\text{CrO}_4 \cdot \text{Fe}_2(\text{CrO}_4)_3 + 4\text{H}_2\text{O} = 683.82$.—Brown cryst. crusts.—**SOL.**: W.

Iron & Ammonium Citrate Merck—Ferric—Soluble, U.S.P. X—Brown Scales or Pearls

Soluble Ferric Citrate; Iron Ammoniocitrate.—Reddish-brown, transp., hygrosc. scales; saline, ferrug. taste; deliquesce. in moist air; 16%–18% Fe = 22.8%–25.7% Fe_2O_3 .—**SOL.**: Eas. & compl. in W.; insol. A.—**USES**: As of o. mild iron prep.; also techn. in photo., f. blue-prints.—**DOSE**: *Intern.*, 0.2–0.6 Gm. (3–10 grn.); aver. dose 0.25 Gm. (4 grn.).—*Subcut.* 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) in 10% aqu. solut.—**CAUT.**: Keep well stoppered & in the dark.

do. —B.P.—Brown Scales

21.7%–22.4% Fe = 31%–32% Fe_2O_3 .—**SOL.**: 0.5 W.; alm. insol. A.—**USES & DOSE**: As of preceding.

do. Merck—Green Scales or Pearls

Green v. hygrosc. scales; abt 15% Fe.—**SOL.**: Very eas. W.—**USES**: *Subcut.* in pernicious anemia & malaria, when Fe by mouth not well borne, (B.P.C.).—*Techn.*, partic. adapted f. blue prints bec. perfectly free fr. ferrous salt.—**DOSE**: *Intern.*, 0.3–0.6 Gm. (5–10 grn.); *subcut.*, 0.5–1 cc. (8–15 M) of a 4% solut. in steril. W. injected deeply (B.P.C.).—**CAUT.**: Very sensit. to light; carefully keep in the dark!

Iron & Ammonium Oxalate Merck—C.P.—Cryst.

Iron Ammonio-oxalate.— $(\text{NH}_4)_3\text{Fe}(\text{C}_2\text{O}_4)_3 + 3\text{H}_2\text{O} = 428.04$.—Green cryst.—**SOL.**: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.020%
Ferrous Salts (Fe'').....	0.003%

USES: Photo., somet. inst. of double citrate, f. blue-prints.—**CAUT.**: Sensit. to light; keep in a dark place!

do. Merck—Cryst.

Iron & Ammonium Sulphate Merck—Ferric—Reagent

Ammonioferric Alum.— $\text{FeNH}_4(\text{SO}_4)_2 + 12\text{H}_2\text{O} = 482.19$.—Pale violet, transparent, ef-

floresc., odorl. cryst. of acid reaction.—SOL.: Abt 3 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Nitrate (N ₂ O ₅).....	0.010%
Alkali Salts.....	0.040%
Zinc (Zn).....	0.003%
Ferrous Salts (Fe'').....	0.001%
Copper (Cu).....	0.005%

USES: As Indicator in titrating halogens w. AgNO₃ & NH₄SCN; standardizing KMnO₄ soluts (Fe first reduced to *ous* condition).

Iron & Ammonium Sulphate Merck—Ferric—C.P.

Ammonioferric Alum.—FeNH₄(SO₄)₂ + 12H₂O = 482.19.—Pale violet, odorl., efflor. cryst.; acid, styp. taste.—SOL.: Abt 3 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Alkali Salts.....	0.100%
Copper (Cu).....	0.010%
Ferrous Salt (Fe'').....	0.003%
Zinc (Zn).....	0.003%

USES: As of the Reagent, above.

do. Merck—Ferric—U.S.P. VIII—Cryst.

DESCRIPTION & SOL.: As above.—ACTION: Styp.; Astring.; Tonic.—USES: Hemorrhage, leucor., etc. as of o. iron salts.—*Techn.*, dyeing (where a perfectly neutral salt is required).—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose 0.5 Gm. (8 grn.).—CAUT.: Keep cool & fr. light.

Iron & Ammonium Sulphate Merck—Ferrous—Reagent

Ferrous Ammonium Sulphate; Mohr's Salt.—Fe(NH₄)₂(SO₄)₂ + 6H₂O = 392.14.—Pale bluish-green cryst. or granules.—SOL.: Abt 6 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.000%
Phosphate (P ₂ O ₅).....	0.000%
Alkali Salts.....	0.016%
Copper (Cu).....	0.005%
Ferric Salt (Fe''').....	0.005%
Manganese (Mn).....	0.015%
Zinc (Zn).....	0.003%

USES: Standardizing soluts KMnO₄ & K₂Cr₂O₇; inst. of FeSO₄ as more stable than latter; in volumetr. determ'g CrO₃, MnO₂, & V in steel; detect'g O & H₂O₂; reag. f. HNO₃ (Austen-Chamberlain; Rosa), HCN (Lea), CuSO₄ (Ling-Rendle), W. (Scriba).

Iron & Ammonium Sulphate Merck—Ferrous—C.P.—Cryst.

Mohr's Salt; Ferrous Ammonium Sulphate.—FeSO₄(NH₄)₂SO₄ + 6H₂O = 392.14.—Pale bluish-green cryst.—SOL.: Abt 6 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Alkali Salts.....	0.050%
Copper (Cu).....	0.005%
Ferric Salt (Fe''').....	0.015%
Zinc (Zn).....	0.003%

USES: As of the Reagent, above.

do. Merck—Ferrous.—Cryst.

USES: Photogr.

Iron & Ammonium Tartrate Merck—U.S.P. VIII—Scales

Ammonium & Iron Tartrate; Ferric Ammonium Tartrate.—Reddish-brown transp. scales; sweetish ferrug. taste.—SOL.: W.; insol. A.—USES: As of o. mild iron preps. as chalybeate.—DOSE: 0.3–0.6 Gm. (5–10 grn.), B.P.C.

Iron & Cinchonine Citrate

Cinchonine Ferrocitrate.—25% cinchonine.—Yellowish-brown scales.—SOL.: Hot W.

Iron & Magnesium Citrate—Ferric

Brown scales.—SOL.: W.—USES: Mild chalyb.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

Iron & Magnesium Lactate—Ferrous

Magnesium Ferrolactate.—Yellowish powd.—SOL.: W.—ACTION: Hemat.—USES: As of iron lactate.

Iron & Magnesium Sulphate—Ferrous

FeSO₄.MgSO₄ + 14H₂O = 524.50.—Greenish-wh., cryst. powd.—SOL.: W.—USES: Non-astring., mild chalyb. in chlorosis & anemia.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

Iron & Manganese Carbonate—Ferrous

Gray to grayish-brown powd.—SOL.: Acids; insol. W.—ACTION: Hemat.; Alter.—USES: Anemia & chlorosis like iron carbonate.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

Iron & Manganese Chloride—Ferrous

Orange-yellow cryst.—SOL.: W., w. turbidity.

Iron & Manganese Citrate—Ferric

Brown, odorl. scales; 12%–15% Fe.—SOL.: Slowly in W.; solub. decreases w. age.—USES: As of iron citrate.—DOSE: 0.2–0.6 Gm. (3–10 grn.) sev'l t.p.d.

Iron & Manganese Iodide—Ferrous

Granular, grayish-black, v. deliquescent lumps.—SOL.: Part. W.

Iron & Manganese Lactate—Ferrous

Wh. powd.—SOL.: W.—ACTION: Chalyb.; Tonic; Alter.; Emmen.—USES: Chlorosis & anemia.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

Iron & Manganese Peptonized Merck—Powd.

"Iron & Manganese Peptonate."—Brown powd.; 2%–2.5% Fe & 1%–1.5% Mn.—SOL.: W.—ACTION: Efficient Hematinic.—DOSE: Given in powd. only, 0.12–0.6 Gm. (2–10 grn.).

do. Merck—Scales

Brown scales; 12%–15% Fe & 2.5%–3% Mn.—SOL.: W.

Iron & Manganese Pyrophosphate with Ammonium Citrate—Ferric

Yellowish-green scales.—SOL.: W. w. turbid.—USES: As of iron pyrophosphate w. ammonium

citrate; partic. well adapted f. subcut. inject.—DOSE: Inj. 2 cc. (30 M) of a 10% aqu. solut.—CAUT.: Sensit. to light. Keep in a dark place.

Iron & Manganese Sulphate—Ferrous

Yellowish-wh. powd.—SOL.: Hot W.—ACTION: Astring.; Tonic; Antisep.—USES: Erysip., chlorosis, leucor., gleet, &c.—DOSE: 0.06–0.12 Gm. (1–2 grn.).

Iron & Manganese Tartrate—Ferric

Brown scales.—SOL.: W.—USES: Erysip., leucor., &c.—DOSE: 0.06–0.1 Gm. (1–1½ grn.).

Iron & Potassium Citrate—Ferric

Brown, odorl., hygroscop. scales; abt 16% Fe.—SOL.: W.; insol. A.—ACTION: Mild chalyb.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

Iron & Potassium Oxalate Merck—Ferric

$K_3Fe(C_2O_4)_3 + 3H_2O = 491.22$.—Emerald-green, monocl. cryst.—SOL.: Eas. W.; alm. insol. A.—CAUT.: Sensit. to light.

Iron & Potassium Tartrate Merck—Ferric—U.S.P. VIII—Brown Scales or Powd.

Ferric Potassium Tartrate; Tartrated Iron; Tartarized Iron.—Approx., $K(FeO)C_4H_4O_6 = 258.99$.—Garnet, sltly deliques. scales; sweetish ferrug. taste; abt. 30.8% $Fe_2O_3 = 21.56$ Fe.—SOL.: W.; sparingly 90% A.—ACTION: Tonic; Chalyb.; Emmen.—USES: Nonstring., agre. chalyb. in anemia of convalesc.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

do. —Ferrous

Ferrated Tartar; Iron Tartar.—Mixt. of ferric & ferrous potassium tartrates.—Greenish-gray powd. or globules; bec. brown in time.—SOL.: v. largely in W.—USES: Iron baths, partic. in form of globules (Boules de Nancy), 30–120 Gm. (1–4 oz.) boiled w. W. & added to a full bath.

Iron & Quinine Chloride—Ferric

Quinine Ferrichloride.—Brown scales.—SOL.: W., A.—ACTION: Hemostatic; Antipyr., &c.—USES: Intern. & extern., hemostatic. In epistaxis the powd. is snuffed up; on bleeding surfaces it is dusted; in hematemesis, intest. & pulmon. hemorrhage, & hematuria it is taken intern.—DOSE: 0.1–0.2 Gm. (1½–3 grn.) sev'l t.p.d.

Iron & Quinine Citrate Merck—Soluble—U.S.P. IX—Pearls or Scales

Greenish or golden-yellow, deliq., transp. scales; bitter, ferrug. taste; not less than 11.5% anhydr. quinine, & 13% Fe = abt 18.6% Fe_2O_3 .—SOL.: Rapidly & compl. in cold W., part. in A.—ACTION: Tonic; Emmen.—USES: Chlorosis, neural., anemia, debil., & where quinine & iron are indic.—DOSE: 0.2–0.6 Gm. (3–10 grn.); aver. dose 0.25 Gm. (4 grn.).—CAUT.: Keep fr. light.

do. Merck—U.S.P. VIII—Brown Scales

Dark-red, lustr., transp. scales; abt 11.5% dried quinine, & 13.5% Fe = 19.3% Fe_2O_3 .—SOL.: Slowly but compl. in W.—USES: Anemia,

chlorosis, neuralg.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

do. —Green—B.P.

Greenish-golden-yellow scales.—Abt 15% anhydr. quinine.—SOL.: 0.5 W.—USES & DOSES: As preced'g.—CAUT.: Keep fr. light.

Iron, Quinine & Strychnine Citrate Merck

Quinine Ferrocitrate w. Strychnine.—Green, transp. scales; 1% strychnine, 11%–12% anhydr. quinine, & 12%–13% Fe.—SOL.: W.—ACTION: Tonic; Antipyr.; Antiper.—USES: Anemia, chlorosis, convalesc. fr. malarial & o. affect., &c.—DOSE: 0.06–0.3 Gm. (1–5 grn.).—CAUT.: Keep carefully stoppered & in the dark.

Iron & Sodium Citrate

Ferric Sodium Citrate.—Light-brown scales.—SOL.: W.—ACTION: Tonic; Astring.; Refrig.—DOSE: 0.06–0.6 Gm. (1–10 grn.).

Iron & Sodium Oxalate Merck

Ferric Sodium Oxalate.— $2Na_3Fe(C_2O_4)_3 + 9H_2O = 939.88$.—Emerald-green cryst.—SOL.: 2.5 W.—ACTION: Tonic; Astring.; Emmen.—DOSE: 0.2–1 Gm. (3–15 grn.).—USES: Photography.—CAUT.: Keep in the dark.

Iron & Sodium Pyrophosphate

Ferric Sodium Pyrophosphate.— $Fe_4(P_2O_7)_3 \cdot 3Na_4P_2O_7 + 14H_2O = 1796.06$ (?).—Grayish-wh. gran. powd., or scales.—SOL.: Slowly but freely in W.; insol. A.—ACTION: Tonic; Astring.; Emmen.—DOSE: 0.2–1 Gm. (3–15 grn.).

Iron & Strychnine Citrate Merck

Garnet to brown transp., bitter, hygrosc. scales; abt 1% strychnine, & 16% Fe as ferric citrate.—SOL.: W.—ACTION: Tonic; Hemat.—USES: Where iron & strychnine are indic.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.12 Gm. (2 grn.).—CAUT.: Avoid large doses.

Isacen

Diacetyldioxyphenylisatin.—Wh., odorl., tastel., cryst. powd.—SOL.: Slty A., v. slty E., insol. W.—MELT.: 241°–242° C.—ACTION: Lax.; Purg.—DOSE: As lax., 0.005 Gm. (1/12 grn.); in obstin. constip. 0.015–0.02 Gm. (1/4–1/3 grn.).

Isatin

Isatinic Acid Anhydride; Anhydride of Ortho-aminobenzoylformic Acid; Isatinic Acid Lactime.— $C_6H_4.CO.C(OH).N = 147.09$.—Fr. indigo by oxid'n w. HNO_3 .—Yellowish-red cryst.; bitter taste.—SOL.: Slty cold, more eas. hot, W., A., E.; also in alkali hydroxide soluts (soluts violet becoming yellow on stand'g.).—MELT.: 197°–198° C.—USES: Reag. f. mercaptans (Denigès), thiophene (Meyer), & indican (Bouma).

ISATINIC ACID ANHYDRIDE, OR LACTIME—see Isatin

Isatophan

Methyloxyphenylquinolinecarboxylic Acid.— $\text{CH}_3\text{O.C}_7\text{H}_4\text{N.C}_6\text{H}_5.\text{COOH}$ [8:2:4] = 255.19.—Lemon-yellow, tastel., cryst. powd.—SOL.: A., C., E., alkalies; insol. W.—MELT.: 216°C .—USES & DOSE: As of Acid Phenylcinchoninic.

Isinglass—B.P.C.

Ichthyocolla; Fish Glue.—The inner membrane of the swimming bladder of *Acipenser Huso*, L., & o. sp. of sturgeon, *Ganoidei*, Sturiones, found in the Black Sea, Caspian Sea, & in the rivers emptying into these seas.—Thin, wh., or yellowish, semi-transp., pearly, iridesc., horny sheets.—SOL.: hot W.; hot dil. A.—CONSTIT.: Glutin (chiefly).—USES: Nutr. inst. of gelatin.—*Techn.*, as adhesive, in "court plaster," & f. clarifying (fining) wine & beers; also in cooking, as jellies, sweetmeats, soups, &c.; as protective colloid in manuf. various chemicals; glass & porcelain cements; lustering & stiffening silks & o. fabrics; w. pyroxilin f. waterproofing fabrics; in ice creams; etc.

ISINGLASS; BENGAL, CEYLON, CHINESE, OR JAPAN—see Agar

ISOAMYL (Compounds)—see under *iso*-Amyl

ISOAMYL ALCOHOL—see Alcohol Amylic

ISOAMYL CARBAMATE, OR CARBAMINATE—see *iso*-Amyl Urethane

ISOAMYL MERCAPTAN—see *iso*-Amyl Sulphydrate

ISOAMYL VALERIANATE—see *iso*-Amyl *iso*-Valerate

ISOAMYL BENZOIC ESTER—see *iso*-Amyl Benzoate

ISOAMYLENE—see Amylene

ISOAMYLHYDROCUPREINE—see Eucupin Base

ISOAMYLUREA—see Amylcarbamide

ISOBUTYL (Compounds)—see under *iso*-Butyl

ISOBUTYL ALCOHOL, PRIMARY—see Alcohol *iso*-Butylic

ISOBUTYL ALCOHOL, TERTIARY—see Alcohol Butylic, Tertiary

ISOBUTYL PARAMINOBENZOATE—see Cycloform

ISOBUTYL RHODANIDE, OR SULPHOCYANIDE—see *iso*-Butyl Sulphocyanate

ISOBUTYLCARBYLAMINE—see *iso*-Amylamine

ISOBUTYLORHOCRESOL IODIDE—see Europhen

ISOBUTYLURETHANE—see *iso*-Butyl Carbamate

ISOBUTYRIC CHLORIDE—see *iso*-Butyryl Chloride

ISOBUTYRYLOXYNAPHTHOQUINONE—see Acid Filicic

ISOCAPRONITRILE—see *iso*-Amyl Cyanide

ISOCTYLHYDROCUPREINE DIHYDROCHLORIDE—see Vuzin Dihydrochloride

ISODIAMYLAMINE—see *iso*-Diamylamine

Isodulcit

Rhamnose.— $\text{CH}_3(\text{CH.OH})_4.\text{CHO.H}_2\text{O}$ =182.14.—A carbohydrate; one of the pentoses.—Decomp. prod. of various glucosides.—Colorl. cryst.—SOL.: Eas. W., A.—MELT.: 93° – 95°C .

ISOEUGENOL—see *iso*-Eugenol

Isoform Powder

Mixt. paraiodoxyanisol ($\text{OCH}_3.\text{C}_6\text{H}_4.\text{IO}_2$) w. an equal wt. calc. phosphate.—Wh. powd.; faint odor of anise; abt 24% I.—SOL.: Diffic. W.; insol. A., E. The pure substce explodes on heating to 230°C ., hence mkted as Isoform Powd.—ACTION: Antisep.; Deodorant.—USES: *Extern.*, as of iodoform; *intern.*, as intest. disinfect.—DOSE: 8–15 Gm. (2–4 dr.) p.d.—APPL.: In 1:1 G. suspens., oint., & 1%–10% gauze.

ISO-IODEIKON—see Phentetiothalein Sodium

ISONAPHTHOL—see Betanaphthol

ISOPHYSGTIGMINE SULPHATE—see *iso*-Physostigmine Sulphate

Isopral

Trichlorisopropylalcohol.— $\text{CCl}_3.\text{CH}:\text{CH}_3.\text{OH}$ =163.44.—Prismatic cryst.; camphor. odor; pung. taste.—SOL.: Abt 35 cold W.; more read. in A. & E.—MELT.: 49°C .—ACTION: Hypnotic.—USES: Neurasth., asthma, excitement, & sleeplessness; hypn. in cardiac dis.; epilepsy.—DOSE: 0.3–1 Gm. (5–15 grn.).—CAUT.: Dispense in wax paper, & keep cool, as v. volat.

ISOPROPYL (Compounds)—see under *iso*-Propyl

p-ISOPROPYLBENZOIC ALDEHYDE—see Cuminol

α -ISOPROPYL- α -BROMBUTYRAMIDE—see Neodorm

ISOPROPYLCARBINOL—see Alcohol *iso*-Butylic

ISOPROPYL-*o*-CRESOL—see Carvacrol

ISOPROPYLIDENEACETONE—see Mesityl Oxide

p-ISOPROPYLMETACRESOL—see Thymol

ISOPROPYLTOLUENE—see Cymene

ISOVALERAL—see Aldehyde *iso*-Valeric

ISOVALERYLACETYLPHENOLPHTHALEIN—see Aperitol

ISOVALERAMIDE—see *iso*-Valeramide

ISOXYLENE—see *m*-Xylene

Ispaghula—B.P.

Dried seeds of *Plantago ovata*, Forskal, Plantaginæ.—HABIT.: India; Persia.—CONSTIT.: Mucilage (in the seed coat); fixed oil, proteins.—ACTION: Demulcent like linseed or barley.—DOSE: 3–10 Gm. (45–150 grn.) in decoct.

Istizin

1,8-Dioxyanthraquinone.— $\text{HO.C}_6\text{H}_3(\text{CO})_2.\text{C}_6\text{H}_3.\text{OH}$ =240.13.—Gold to orange-yellow cryst.—SOL.: Abt 10 hot glac. acetic acid; diffic. W., alkalies, & organic solvents.—MELT.: 190° – 192°C .—ACTION: Cathartic.—DOSE: 0.3–1 Gm. (5–15 grn.).

IVORY BLACK—see Charcoal, Animal

J

JABORANDI—see *Pilocarpus*

Jaborine

Mixture of pilocarpine, isopilocarpine, & pilocarpinidine.—ACTION: Mydriatic, like atropine but weaker.—CAUT.: Poison!

Jacquemart's Solution—Test for Ethyl Alcohol

Aqu. solut. of $\text{Hg}(\text{NO}_3)_2$ acidul. w. HNO_3 .—On heat'g, ethyl alcohol reduces the Hg-salt, so that a black ppt. forms on add'g NH_4OH . Methyl alcohol does not give this reaction.

Jalap—U.S.P. X; B.P.

Dried tuberous root of *Exogonium Jalapa*, Baillon (*Ipomœa Purga*, Hayne, B.P.), Convolvulaceæ, yield. not less than 7% total resins, U.S.P.; not less than 9% or more than 11%, B.P.—HABIT.: Mexico; cult. India.—CONSTIT.: Resin (convolvulin; jalapin), (abt 20%, abt 5% of which is sol. in E., B.P.C.) gum; sugar.—ACTION: Drastic Purgat.; Diuret.; Anthelmin.—USES: Dropsy, cerebr. hyperemia, constip., worms, &c.—DOSE: 0.3–2 Gm. (5–30 grn.); aver. dose 1 Gm. (15 grn.).—Alcoh. extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

JALAPIN—see Resin Jalap White, fr. light root

JALAPURGIN—see Resin Jalap, white, fr. light root

JAMAICA DOGWOOD—see *Piscidia*

JAMAICA PEPPER—see *Pimenta*

JAMBOO—see *Jambul*

Jambul

Jamboo; Java Plum; Jumbul.—Bark, fruit, & seed of *Eugenia* (*Syzygium*) *Jambolanum*, Lam., Myrtaceæ.—HABIT.: East Indies.—CONSTIT.: *Bark*: Resin, tannin.—*Fruit*: Volat. & fixed oils; resin; tannin.—*Seed*: Resin; fat; gallic acid; albumin.—USES: *Bark*: Antidiabetic; Astring.; also *techn.*, in tanning.—*Fruit*: Stated to be a specific in diab.; also in bilious diarrheas, sore throat, & ringworm.—*Seed*: Antidiabetic (the seeds have been found capable of retarding or restraining the action of diastasic ferments).—DOSE: *Seeds*: 2–4 cc. (30–60 M) of fl'dextr. daily, begin. w. 0.6 cc. (10 M) 3 t.p.d.—Alcoh. extr., 0.6–3 Gm. (10–45 grn.).—*Bark*: Fl'dextr., 4–15 cc. (1–4 fl. dr.).

JAMES' POWDER—see Calcium Phosphate, Antimoniated

JAMESTOWN WEED—see *Stramonium*

JAPACONITINE—see Aconitine Fr. Japanese Aconite

JAPAN CAMPHOR—see *Camphor*

JAPAN GELATIN, or ISINGLASS—see *Agar*

JAPAN TALLOW—see *Wax*, Japan

JAUNDICE BERRY—see *Barberry Bark*

JAUNE BRILLIANT—see *Cadmium Sulphide*, Yellow

JAUNE D'OR—see *Martius Yellow*

JAVA PEPPER—see *Cubeb*

JAVA PLUM—see *Jambul*

JENITE—see *Lievrite*

Jenner's Stain

(a) Solut. 0.5 Gm. eosine in 100 cc. methyl A.—(b) Solut. 0.5 Gm. methylene blue in 100 cc. methyl A.—For use mix 125 cc. solut. (a) w. 100 cc. solut. (b).—A dry mixt. of the two dyes in the proportions given may also be used, from which a 1% solut. in methyl A. may be made.—USES: Stain. neutrophile granules in leucocytes, & as general blood stain.

Jequiritol Römer—Each package contains 4 tubes of graded solutions of Jequiritol (No. 1, 2, 3, & 4), and 4 tubes Jequiritol Serum

Prep'd fr. jequirity seed, *Abrus precatorius*, & introduced by Römer into ophthalmic practice.—Sterile liquid cont. 50% G., & of constantly uniform physiological action, thus permitting accurate dosage.—USES: Chronic ocular inflammations of various etiology, in which jequirity infusion was formerly used.—DOSE: Beginning w. 1 drop per day of solut. No. 1, & incr. the dose by 1 drop ev. day till the characteristic jequiritol inflammation supervenes.

Jequiritol Serum Römer

Prep'd accord. to Behring's principle, possesses the power to rapidly & surely neutralize the action of jequiritol in the human system. The action is obtained both by applying it locally, or by subcut. inj.—Marketed in tubes of 5 cc. (75 M) each.

JEQUIRITY—see *Abrus*

JERUSALEM TEA—see *Chenopodium*

JESUITS' BALSAM—see *Copaiba*

JESUITS' BARK—see *Cinchona*

JESUITS' TEA—see *Maté*

JIMSON, or JIMPSON, WEED—see *Stramonium*

Jolles' Solution—Test for Albumin in Urine

Solut. 10 Gm. HgCl_2 , 20 Gm. succinic acid, & 20 Gm. NaCl in 500 cc. W.—Albuminous urine is rendered turbid by the test solut.

JORDAN ALMOND—see *Almond*, Sweet

JUDEAN PITCH—see *Asphalt*

Juglandin

Resinoid fr. root bark *Juglans cinerea*, L.—Grayish-wh., powd.—SOL.: Sltly A.—ACTION: Cath.; Hepatic Stim.; Antiper.—USES: Mild lax., habit. constip., & remit. fever.—DOSE: 0.12–0.3 Gm. (2–5 grn.).

Juglans—N.F. V

Butternut; White Walnut; Lemon Walnut; Oil Nut.—Dried inner root bark of *Juglans cinerea*, L., Juglandaceæ, collected in the autumn.—HABIT.: North America (Canada; U. S.).—CONSTIT.: Resinoid juglandin; nucin (juglone; juglandic acid); fixed & volat. oils; tannin.—ACTION: Laxat.; Cathart.; Hepat.; mild Intest. Stim.; Antiper.; Alter.—USES: Habitual constip., dysent., malar. fevers, &c.—DOSE: 4–8 Gm. (1–2 dr.); aver. dose 4 Gm. (60 grn.).—Fl'dextr., 4–8 cc. (1–2 fl. dr.).—Hydro-alcohol. extr., 0.6–2 Gm. (10–30 grn.).

JULIN'S CARBON CHLORIDE—see Perchlorbenzene

JUMBLE BEADS—see Abrus

JUMBUL—see Jambul

Juniper Berries—N.F. V; Fr. Cod.

Dried ripe fruit of *Juniperus communis*, L., Pinaceæ. (The wood & tops are also employed but are not official).—HABIT.: Northern Europe; Asia; North America.—CONSTIT.: Volat. oil; juniperin; resin; proteids; malates, formic & acetic acids.—ACTION: *Berries*: Diuret.; Stim.; Anodyne; Emmen.; Carmin.; Stomachic.; Antisep.—*Wood*: Diuret.; Diaphor.—*Tops*: Diuret.—*USES*: *Techn.*, in manuf. of liquor, & f. fumigating.—DOSE: *Berries*: 4–8 Gm. (1–2 dr.) in infus.—Extr. (inspiss. juice), 0.3–1 Gm. (5–15 grn.).—Fl'dextr., 2–6 cc. (30–90 M).

K**Kainite—Mineral**

OCCUR.: Stassfurt.—COMPOS.: Double salt $MgSO_4.KCl.3H_2O$.—CRYST. SYST.: Monosym.—COLOR: Wh. to dark flesh-red.—USES: Source of potassium salts & as fertilizer.

Kaiser's Glycerin-Gelatin

Soften 7 Gm. gelatin in 42 cc. W., then diss. by warming, then add 38 cc. glycerin & 1 Gm. phenol, & filter while hot thro. glass wool.—USES: Preserv. plant specimens.

Kaladana—B.P.

Pharbitis Seeds.—Dried seeds of *Ipomœa hederacea*, Jacq., Convolvulaceæ.—HABIT.: India.—CONSTIT.: Resin (pharbitisin), fixed oils (14%), mucilage, proteins, & tannin (B.P.C.).—ACTION: Cathart.—DOSE: 2–3 Gm. (30–45 grn.).—Comp. Powd. (5 Kaladana, 9 potass. bitart., 1 ginger), 0.6–4 Gm. (10–60 grn.).—Tr. (1:5), 1–4 cc. (15–60 M).

Kaladana Resin—B.P.

Pharbitisin.—Mixt. of resins fr. Kaladana.—Brownish, brittle, opaque lumps, or gray powd., sweetish odor; acrid taste.—SOL.: Eas. A.; insol. B., C., E., CS_2 , W.—MELT.: $160^\circ C$. (B.P.C.).—ACTION: Cathart.—USES: As of jalap resin.—DOSE: 0.12–0.5 Gm. (2–8 grn.).

Kal-Fos

A selected grade of Calcium Phosphate especially intended f. dogs, calves, & o. domestic animals.—Recommended by veterinarians & breeders of dogs as an excellent tonic & aid in developing good growth of bone in puppies; also to prevent rickets, & as an antacid f. matron's milk.

KALMOPYRIN

KALSETAL

} see Calcium Acetylsalicylate

Kalzine

Calcium Chloride-Gelatin Merck.—5% $CaCl_2$ + 10% gelatin in solut.—USES: To incr. blood coagulability in hemorrhagic diathesis, Base-

dow's dis., asthma, tetanus, exudative pleuritis, etc.—DOSE: 5–7 cc. (75–110 M) intramusc. or subcut., the tube, cont'g 150 cc. (in which form mktd), being first warmed in boil. W.

Kamala—B.P.C.

Kamila; Kameela; Spoonwood.—Glands & hairs covering the fruits of *Mallotus Philippinensis*, Muell. Arg. (*Rottlera tinctoria*, Roxb.). Euphorbiaceæ.—HABIT.: Philippine Islands; India; China; Australia.—CONSTIT.: Kamalin (rottlerin; mallotoxin); isorottlerin (?); homorottlerin; yellow & red resins; wax.—ACTION: Anthelmintic.—USES: *Intern.*, tape-worm remedy & purgat.—*Extern.*, in ringworm, itch, & o. parasitic dis.—DOSE: 2–8 Gm. (30–120 grn.).—Fl'dextr., 4–8 cc. (60–120 M).

Kamalin

Rottlerin; Mallotoxin.— $C_{33}H_{30}O_9 = 570.41$.—Bitter prin. fr. Kamala.—Reddish-brown cryst. powd.—SOL.: C., E.; diffic. CS_2 , A.—MELT.: 200° – $201^\circ C$.—ACTION: Anthelm.

KAMEELA, OR KAMILA—see Kamala

KANDOL—see Canadol

Kaolin Merck—N.F.V

Bolus Alba; China Clay; Porcelain Clay; White Bole; Argilla; Terra Alba.—Decomp'n prod. of feldspar; consists essentially of hydrated aluminum silicate, $H_2Al_2Si_2O_8 + H_2O$, or, $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$.—Wh. or yellowish-wh., earthy mass, or wh. powd., unctuous when moist. Prepared f. pharm. & medicinal purposes by treat. w. 5% HCl, & remov. sand by levigating w. W.—Insol. W., & in cold solut. of acids & alkali hydroxides.—USES: *Intern.*, colitis, cholera, dysentery, typhoid, gastroenteritis, gastrointestinal catarrh, ptomaine poisoning, vomiting, & diphth., in susp. in W.—*Extern.*, ulcer of leg, suppurating wounds, empyema, gangrene, fractures, skin grafting, moist eczema, & as dressing f. boils, carbuncles, etc.; also in uterine carcinoma, cervical catarrh, metritis, endometritis, vulvovaginitis, & gonorrhea; also

w. glyc., etc. (Cataplasm of Kaolin, N.F.) as cataplasm.—*Techn.*, drying agent & emoll.; clarifying & decolorizing liquids (oils, wine, beer, honey, syrups); excip. f. AgNO_3 & KMnO_4 ; manuf. porcelain, pottery, bricks, Portland cement; filler f. paper; electric & heat insulators; manuf. ultramarine, color lakes, & refractory mortar.—*Dose*: Up to 200–300 Gm. ($6\frac{1}{2}$ –10 oz.), suspended in water; children, 25–30 Gm. (6–8 dr.); *usual adult dose* 125 Gm. (4 oz.) suspended in $\frac{1}{2}$ tumbler water, & repeated in 3 hrs.

Kaolinite—Mineral

Occur.: Europe; U. S.—*Compos.*: $\text{Si}_2\text{O}_9\text{Al}_2\text{H}_4$.—*Cryst. Syst.*: Monosym.—*Luster*: Dull to pearly.—*Color & Streak*: Wh., gray, yellowish, brownish, bluish, or reddish.—*Hardn.*: 2–2.5.—*Sp. Gr.*: 2.6–2.63.—*Plastic*, opaque to transluc.; us'y unctuous.—*Uses*: Manuf. porcelain; in chem. as clarifier.

Karamose

Caramose.—A specially prepared, almost sugar-free caramel.—Brownish-yellow powd.; sltly sweet, pleas. taste.—*Sol.*: W.—*Action*: Nutrient.—*Uses*: Partic. intended f. use in diabetes (mild and moderately severe) to reduce acidosis & to raise the carbohydrate tolerance.—*Dose*: 50–150 (but not over) Gm. ($1\frac{1}{2}$ –5 oz.) per day, with other food (in milk, soup, cream, chocolate, on omelettes, etc.).

Kassner's Mixture

Mixt. of 1 part BaO_2 & 3 parts $\text{K}_3\text{Fe}(\text{CN})_6$.—*Uses*: Evolving oxygen.—The constituents of the mixt. are kept separate until required f. use.

KAT, OR KATH—see Catha

KAURIE—see Copal

KAUTSCHIN—see Dipentene

Kava—N.F. V; B.P.

Kava-Kava; Ava-Ava; Kawa.—Dried rhizome & roots of Piper methysticum, Forst., Piperaceæ.—*Habit.*: Polynesia.—*Constit.*: α - & β -kava resins; kavaine (alkaloid); kavahin; methysticin; yonganin.—*Action*: Sialag.; Sudorific; Diuret.; Tonic; Stim.; Anticatatarrh.—*Uses*: Gonorr., gout, rheum., dropsy, vaginitis, chron. cystitis, retention of urine, gleet, &c.—*Dose*: 1–4 Gm. (15–60 grn.); aver. dose 1 Gm. (15 grn.).—*Liq. extr.*, 1–4 cc. (15–60 M).—*Extr.*, 0.06–0.3 Gm. (1–5 grn.).

KAVA-KAVA—see Kava

KAVASANTAL—see Gonosan

KAWA—see Kava

KAWAINE—see Methysticin

Kefir Fungi Merck

Kefir Grains; Kefir Seeds.—A fermentation-causing conglomeration of var. fungi, including those of *Dispora caucasica* & *Schizomycetes*, besides a species of *Saccharomyces*.—Grayish-yellow lumps, irregular in size; firm, toughly gelatinous consistency, becoming cartilaginous

& brittle when dry.—*Uses*: For prepar'g a refreshing & nutritious beverage, which is also partic. beneficial f. patients suffering fr. pulmonary & gastric dis., as well as f. convalescents.—*PREP. OF KEFIR BEVERAGE*: *Preliminary Steps*: Add $\frac{1}{4}$ – $\frac{1}{2}$ oz. of the Kefir fungi to $\frac{1}{2}$ pint of fresh, unheated, unpasteurized, milk & allow to stand 48 hrs at 55° – 65° F., the bottle being stop'd w. a pledget of cotton. Then remove the milk fr. the fungi (the fungi being thrown away) & mix it w. four times its vol. of fresh milk, & this new mixt. is allowed to stand 48 hrs at 55° – 65° F., stop'd as before. This product, which may be designated as Product A, is used to prepare the first lot of the drink. Should Product A, however, have a musty odor or taste, this must first be removed by mixing it again w. four times its vol. of fresh milk & allow'g it to stand 48 hrs at 55° – 65° F., repeat. this operation if neces. until the musty odor or taste has disappeared. *Preparation of the Drink*: Mix Product A, obt'd as above, & free fr. musty odor or taste, w. four times its vol. of fresh milk & keep the mixt. at 55° – 65° F. f. 18 hrs in tightly stop'd bots capable of resisting the pressure resulting fr. the fermentation. If this final fermentation be started at noon, & the bots be gently shaken sev'l times during the afternoon, the finished kefir (Product B) is ready to drink next morning. A portion of Product B is to be used to make the next day's supply of kefir by mix'g it w. four vol. of fresh milk & keeping f. 18 hrs under the same conditions observed in making Product B. The process is thus continuous, each new day's supply being made fr. a part of that of the preceding day so long as a satisfactory drink results.

KEFIR GRAINS, OR SEEDS—see Kefir Fungi

Keilhauite—Mineral

Yttrotitanite.—*Occur.*: Arendal, Norway.—*Compos.*: SiTiO_5Ca w. $\text{SiO}_5(\text{Yt}, \text{Al}, \text{Fe})_2$.—*Cryst. Syst.*: Monosym.—*Color*: Brownish-black.—*Hardn.*: 6.5.—*Sp. Gr.*: 3.52–3.77.

Kelene

Pure Ethyl Chloride put up in automatically-closing & plain-cap tubes specially adapted f. spraying.—*Action*: Local (also general) Anesthetic.—*Uses*: Minor & dental surgery, & in neuralgia, sciatica, lumbago, acute gout, hemi-crania, etc., as spray; heat of the hand forces stream fr. the tube.—Hold 6–10 inches fr. the thro'tly cleansed surface to be sprayed.

KELP-WARE—see Fucus

Kephalin

Hemostatic phosphatid or lipid obt'd fr. the brain tissues or spinal cord, or both, us'y of the ox, or other mammal.—Yellowish, amorph. substce; charact. odor & taste.—*Sol.*: Eas. C., E.; sltly in A.; insol. W., acetone.—*Action*: Blood Coagulant.—*Uses*: Locally in hemorrhages, partic. fr. oozing surfaces in scar tissues, & nose bleed, & in surgery of bones, glands, nose & throat.—*APPLIC.*: 0.1%–0.2% suspension in physiol. solut. NaCl freely ap-

plied to bleeding or oozing surface; or smeared on gauze sponges, pledgets, or on tissues themselves.

Keratin Merck

Substce obt'd fr. horns, hoofs, feathers, quills, etc.—Yellowish-brown powd.—**SOL.**: NH_4OH , conc. acetic acid; insol. W , A , E , & dil. acid.—**USES**: Coating "enteric" pills which are unattached in the stomach, but are dissolved by the alkaline intest. secretions. The solut. used is made by dissolving 7 parts keratin in 100 parts glacial acetic acid, or in 50 parts NH_4OH mixed w. 50 parts dil. alcohol. The pill mass should be made w. fat or wax as an excipient, & the pills, before being coated, should receive a coating of cacao butter or graphite.

do. Zypkin

Wh. or sltly yellowish powd.—**SOL.**: W .—**USES**: Tabes, chron. myelitis, disseminate sclerosis, & hepatic cirrhosis.—**DOSE**: 0.5 Gm. ($\frac{7}{16}$ grn.) 10 t.p.d. in tabl. (in which form mkt'd); subcut., 1 cc. (15 M) p. day of a solut. of 2 Gm. (30 grn.) keratin & 0.1 Gm. ($\frac{1}{16}$ grn.) sod. bicarb. in 10 cc. (150 M) W .

KERMES MINERAL—see Antimony Sulphurated

KERMESIN ORANGE—see Orange T

KETOLE—see Indol

KETOPROPANE—see Acetone

KETOPURINE—see Sarcine

Kharsin

Sodium Methylaminophenylarsinate.—Wh. cryst. powd.; 23.7% As .—**SOL.**: Abt 2.5 W .—**USES**: Syph., malaria, trypanosomiasis.—**Mkt'd** in 1 grain tabl. f. subcut. inj. or per os.—**DOSE**: 1–3 tabl.

Kidney—Dried, Powd.

Fr. fresh kidneys of sheep & pigs.—Light yellowish-gray powd.; 1 part = 6 parts fresh kidney.—**USES**: Nephritis; anemia.—**DOSE**: 0.25–1 Gm. (4–15 grn.), & up to 8 Gm. (2 dr.) p. day.

do. —Tablets, 0.1 Gm. Each

KIDNEY LIVERLEAF—see Hepatica

KIESELGUHR—see Earth, Infusorial

Kieserite—Mineral

OCCUR.: Stassfurt; India.—**COMPOS.**: $\text{MgSO}_4 \cdot \text{H}_2\text{O}$.—**CRYST. SYST.**: Monosym.—**COLOR**: Wh., grayish, yellowish.—**USES**: Chief source of native MgSO_4 .

KIF—see Hashish

KILIAN'S DIGITALIN—see Digitalin, True

KILLEEN—see Chondrus

KINEURINE—see Quinine Glycerophosphate

KING'S GOLD—see Arsenic Sulphide, Yellow

KING'S YELLOW—see Arsenic Sulphide, Yellow; Lead Chromate

Kino—U.S.P. X; B.P.

Resin Kino; Gum Kino.—Dried juice fr. trunk of *Pterocarpus Marsupium*, Roxb., *Leguminosæ*. Not less than 45% alcohol-soluble, & not less than 80% water-sol., extractive, U.S.P.—**HABIT.**: Western Africa; East India; Ceylon.—**SOL.**: Alm. entirely in 90% A ., slowly & incompl. in cold W ., & not less than 75% in boil. W . B.P.—**CONSTIT.**: Kinotannic acid (70%–80%); kino-red; pyrocatechin; kinoin; gum.—**ACTION**: Stypt. & Astring.—**USES**: Diar., heartburn, leucor., passive hemorrhages, diabetes, &c.—**Techn.**, in dyeing & tanning.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.5 Gm. (8 grn.).—**Comp. Powd.** (kino 75, opium 5, cinnamon 20) 0.3–1.3 Gm. (5–20 grn.).—**Fl'dextr.**, 0.6–2 cc. (10–30 M).—**Tr.** (1:10) 2–4 cc. (30–60 M).

KINO, BENGAL—see Butea Gum

KISSINGEN SALT, ARTIFICIAL—see Salt, Kissingen, Artificial

Klein's Solution—For Separating Minerals

Satur. aqu. solut. cadmium borotungstate, $2\text{CdO} \cdot \text{B}_2\text{O}_3 \cdot 9(\text{WO}_3) + 18 \text{H}_2\text{O}$.—**SP. GR.**: 3.28 at 15° C.—**USES**: Separ. minerals by sp. gr.

Kleinenberg's Fat Mixture

Solut. 2 parts cacao butter & 8 parts spermaceti in 2 parts castor oil.—**USES**: As imbedding material in microscopy.

Kleinenberg-Mayer's Picro-Sulphuric Acid

Satur. solut. picric acid in 2% H_2SO_4 w. a few drops creosote added.—**USES**: Fixing most tissue elements (except. those cont. CaCO_3).

Knapp's Solution—For Quantitatively Estimating Glucose

10 Gm. mercuric cyanide, 100 cc. solut. NaOH (Sp. Gr. 1.145), & W . to 1000 cc.—On heat. w. urine cont'g glucose metal. Hg is pptd.—1 cc. test solut. = 0.0025 Gm. glucose; ammon. sulphide is used as indicator by the "spot" method—**Calculation**: cc. solut.: 0.01::100::x, where x = % glucose.

KNIGHT'S SPUR—see Larkspur

KNOB ROOT—see Collinsonia

Koch-Ehrlich's Stain—For Bacilli Tuberculosis

(a): Aqu. 1:200 solut. methylene blue rendered alkaline w. 3–4 drops 10% KOH solut.—(b): Concent. aqu. solut. vesuvium.—The objects are first stained in the methylene-blue solut., then w. the vesuvium solut. Nuclei, as well as most micrococci, are stained brown; tuberculosis bacilli are stained intensely blue.

KOCH'S LYMPH—see Tuberculin Koch

Koch's Methylene Blue Solution

Sat. alcoh. solut. methylene blue, 1 cc.; 10% solut. KOH , 0.2 cc.; W ., 200 cc.—**USES**: Bacterial stain.

KOJI—see Diastase, Taka-

Kola—N.F. V; B.P.C.

Cola; Soudan Coffee; Bissy, Gooroo, or Guru Nuts.—Dried cotyledons of *Cola nitida*, Schott

& Endlicher, or of o. spec. of Cola; seeds of Cola vera, Schumann, B.P.C.; Sterculiaceæ.—HABIT.: West Africa; natur. in West Indies, India, Ceylon, &c.—CONSTIT.: Caffeine (2%–2.5%, B.P.C.); theobromine; kola-red; kolatin; kolanin (glucoside); kolazyme (ferment); kola-tannin; glucose; gum; starch; sugar.—ACTION: Stim.; Tonic; Nervine; Diuret.; Masticatory; Aphrodis.; Astring.—USES: Heart failure, general debil.; incr. muscul. exertion, dropsical condit., inst. of caffeine or coffee, & as stimulat. in marching or traveling.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose 4 Gm. (60 grn.).—Alcoh. extr., 0.12–0.3 Gm. (2–5 grn.).—Liq. extr., 1–2 cc. (15–30 M).—Tr. (1:5) 2–6 cc. (30–90 M).

Kombéin

1:1000 Strophanthin-K Solution, "B. & S."—Carefully tested & activity checked by physiological tests so that 1 cc. solut. cont's 1 Mgm. glucoside = at least 50 frog units (ea. frog unit = quantity of drug that will bring the heart of a 15 Gm. frog [*Rana temporaria*] to a systolic standstill within $\frac{1}{2}$ hr).—ACTION: Prompt Vaso-constrictor & Heart Tonic; *not* Diuret.—USES: Cardiac & circulatory disorders, partic. in acute cardiac weakness where digitalis by mouth would act too slowly; also in the hepatic type of chronic insufficiency where digitalis by mouth would probably be vomited or ineffective; also in all cases where quick relief required in severe dyspnea or distressing or dangerous symptoms; in poisoning by carbon monoxide, morphine, or chloroform; in postoperative collapse; in accidents that may accompany lumbar anesthesia.—DOSE: Initial, 0.5 cc. (8 M) *intraven.*, grad. & caut. incr. to 1 cc. (15 M). It is inadvisable to give more than 1 dose ev. 24 hrs.—*Intern.*, 0.2–1 cc. (3–15 M).—NOTE: Where digitalis has been given, the Kombéin should not, except in desperate cases, be given for at least 48 hrs after the last dose of digitalis, to avoid a cumulative effect.

Koppeschaar's Solution

3 Gm. KBrO₃, 50 Gm. KBr, & W. to make 1000 cc. at abt 25° C., U.S.P. X.

Kosin—Cryst.

Kussin; Koussin; Kossein.—Supposedly a mixt. of α - & β -kosins, melt'g at 160° C. & 120° C. respectively, & obt. fr. female flowers *Hagenia abyssinica*, (Bruce) Gmelin.—Yellow need.—SOL.: A., B., C., E., & alkalies.—MELT.: Abt 150° C.—ACTION: Anthelmintic.—DOSE: 1.3–3 Gm. (20–45 grn.) in divided doses followed by castor oil.—MAX. D.: 1 Gm. (15 grn.) single, & 3 Gm. (45 grn.) p.d.

do. —Amorphous

Brayerin; Koussein.—Amorph. prin. fr. female flowers *Hagenia abyssinica*, (Bruce) Gmelin.—Brownish, amorph. powd.—SOL.: A., C., E.—ACTION: Anthelmintic.—DOSE: 1–4 Gm. (15–60 grn.) in 4 portions at intervals of $\frac{1}{2}$ hr, followed in 1 hr by castor oil; children half the dose.

Kosso—see Brayera

KOUSSEIN—see Kosin, Amorphous

KOUSSIN—see Kosin, Cryst.

KOUSSO—see Brayera

Krameria—U.S.P. X; B.P.

Rhatany.—Dried root of *Krameria triandra*, Ruiz et Pavon (Peruvian Rhatany), of *K. argentea*, Martius (Para or Brazilian Rhatany), Leguminosæ.—HABIT.: Peru; Bolivia; Brazil.—CONSTIT.: *Krameria*-tannic acid (abt 8.4%, B.P.C.); *krameria*-red.—ACTION: Tonic; Astring. (like tannin).—USES: Especially in hemorrhages; chronic diar., menor., spongy gums.—*Extern.*, in leucor., spongy gums, prolapsus ani, fissured anus, &c.—DOSE: 0.3–4 Gm. (5–60 grn.); aver. dose 1 Gm. (15 grn.).—AQU. extr., 0.3–1 Gm. (5–15 grn.); in 10% oint.; 5%–10% solut. as gargle; *inect.*, 1%–2%.—Liq. extr., 1–4 cc. (15–60 M).—Tr. (1:5), 2–4 cc. (30–60 M).

KREATIN—see Creatin

KREATININE—see Creatinine

KREOSOL—see Creosol

KREOSOTE—see Creosote

Kresamine

Trikresolamine; Ethylenediamine-Trikresol.—25% ea. trikresol & ethylenediamine in aqu. solut.—Clear, colorl. liq.—MISC.: All prop. G.; abt 5 W.; immiscib. w. petrolatum.—ACTION: Surgical Antisep.; Dermic, &c.—APPL.: 2%–25% soluts.; 4%–20% oints.

KRESATIN—see Cresatin

Krypton

Kr = 82.92.—Rare element isolated from liquefied air by Ramsay & Travers; estimated to be present in air to the extent of about 1:1,000,000.—Inert gas.—SP. GR.: When liquefied 2.6.—BOIL.: –151.7° C.—When sparked electrically in a vacuum tube gives a yellowish-green glow.—Krypton comp'ds not known at present.

KRESOL—see Cresol

Kryofine

Methoxyacetphenetidin.—CH₃.OCH₃.CONH.C₆H₄.OC₂H₅ = 209.18.—Condens. prod. of paraphenetidin & methylglycolic acid.—Wh., odorl., cryst. powd.—SOL.: 660 W.; freely in A., E., & fixed oils.—MELT.: 98° C.—ACTION: Antipyrr.; Anodyne; Antineuralgic.—USES: Influenza, headache, neuralg., lumbago, tonsillitis, typhoid, pneumon., etc.—DOSE: 0.3–1 Gm. (5–15 grn.) single, 2–5 Gm. (30–75 grn.) p. day.

KRYOGENIN—see Cryogenine

Kühne's Carbolic Methylene Blue

Methylene blue, 1.5 Gm.; absol. alcoh., 10 cc.; 5% aqu. solut. carbolic acid, 100 cc.—USES: Bacterial stain.

KUSSIN—see Kosin, Cryst.

KYANITE—see Rhaetizite

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LABARRAQUE'S SOLUTION—see Solution Chlorinated Soda

LABORDIN—see Analgin

Labradorite—Mineral

OCCUR.: Brit. America; U. S.; Labrador; Greenland; Norway; Sweden; Finland.—COMPOS.: $\text{Si}_3\text{O}_6\text{AlNa}$ w. $\text{Si}_2\text{AlO}_3\text{AlCa}$.—CRYST. SYST.: Asym.—LUSTER: Vit. to alm. pearly.—COLOR: Dark-gray, brown, greenish or colorl.—STREAK: Wh.—CLEAV.: Perfect basal-pinacoidal & sltly less perfect brachypinacoidal.—Brittle; transluc. to opaque.—HARDN.: 5–6.—SP. GR.: 2.7–2.72.

LABURNUM, INDIAN—see Cassia Fistula

LAC SULPHURIS—see Sulphur, Precipitated

LACCA—see Shellac

LACCA CÆRULEA, OR MUSICA—see Litmus

Lacmoid Merck—Reagent

Resorcinol Blue. — $\text{C}_6\text{H}_3(\text{OH})_2.\text{O.N}.\text{C}_6\text{H}_3(\text{OH})_2$ = 231.14.—Fr. resorcinol & NaNO_2 by heat.—Lustr., dark-violet scales or granules.—SOL.: A., acetone, less so in W., E.—INDIC. SOLUT.: 0.2 Gm. lacmoid, 100 cc. A.; abt 0.2 cc. per 100 cc. liquid to be titrated used.—TEST F. SENSITIVENESS: 0.2 cc. solut. + 100 cc. W. (freed fr. CO_2 by boil. in platin. dish) + 0.05 cc. 0.1*N* HCl—blue color changed to red; add 0.05 cc. 0.1*N* KOH—blue color restored.—USES: Indic. (alkalies = blue; acids = red; PH = 4.4–6.4) f. titrating mineral acids & strong bases (e.g. NH_4OH & hydroxides of alkalies & alkali earths). & various alkaloids; determ. alkalinity & temporary hardness in water analysis.

Lacmoid Paper

Wh. paper, impreg. w. solut. of lacmoid & dried.—Both a red & a blue paper are made. The red paper is far more sensitive than red litmus paper f. alkalies, & because of its proneness to spoil, should be preserved in well-stoppered bottles.—USES: Indic., in alkalimetry (alkalies = blue; acids = red).

LACMUS—see Litmus

Lactamide

$\text{CH}_3.\text{CH}(\text{OH}).\text{CO}.\text{NH}_2$ = 89.08.—Fr. ethyl lactate or lactic anhydride by NH_3 gas.—Wh., hygrosc. cryst.—SOL.: eas. W., A.—MELT.: 74° C.

Lactid

$\text{CO}(\text{CH}_3.\text{CH}_2.\text{O}.\text{CO}).\text{O}.\text{CH}.\text{CH}_3$ = 144.09.—Fr. lactic acid by dry air & heat.—Monoclin tablets.—SOL.: Sltly W.; w. diffic. in cold absol. A.; on boil. w. W. is converted into lactic acid.—MELT.: 124.5° C.

LACTOBIOSE—see Milk Sugar

LACTOGLUCOSE—see Galactose

LACTOL—see Betanaphthol Lactate

Lactophenin

Lactyl-*p*-phenetidin. — $\text{C}_6\text{H}_4.\text{OC}_2\text{H}_5.\text{NH}.\text{CH}_3.\text{CHOH}.\text{CO}$ = 210.19.—Wh., cryst., sltly bitter, odorl. powd.—SOL.: 330 cold, 55 boil., W.; 8.5 A.; diffic. E., petroleum.—MELT.: 117.5°–118° C.—ACTION: Antipyr.; Antineural.; Hypnotic, & Analg.—USES: Fever, headache, neural., rheum., influenza, scarlet fever, septicemia, typhoid, etc.; also inst. of antipyrine where idiosyncrasy towards latter exists.—DOSE: 0.5–1 Gm. (8–15 grn.).—MAX. D.: 1 Gm. (15 grn.) single; 3 Gm. (45 grn.) p.d.—In VETER. MED., dogs 0.5–1 Gm. (8–15 grn.) single, & up to 4 Gm. (60 grn.) p.d.; cats, 0.25–0.5 Gm. (4–8 grn.).

Lactose Merck—C. P.

Milk Sugar.— $\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} = 360.25$.—Wh. powd.; sweetish taste.—SOL.: Abt 5 cold, abt 3 boil., W., almost insol. A., insol. C., E.

MAXIMUM OF IMPURITIES

Ignition Res.	0.050%
Dextrin or Starch.	None
Fatty Substcs.	0.020%
Sucrose or Glucose.	0.10%
Nitrogen (N)	0.005%

Lactuca—B.P.C.

Wild Lettuce; Acrid Lettuce; Strong-scented Lettuce; Green Endive.—Flowering herb of *Lactuca virosa*, L. Compositæ.—HABIT: Europe.—CONSTIT.: Lactucin; lactucerin; lactucarium; lactucopicin; lactucic acid; mannite; traces of hyoscyamine.—ACTION: Narcotic; Anodyne; Sedat.; Hypnot.; Diuret.; Expector.—USES: Dropsy, jaundice, gout, asthma; & in prep'n of lactucarium. Mild substitute f. opium in cough mixtures.—DOSE: Extr., 0.3–1 Gm. (5–15 grn.), B.P.C.

Lactucarium—French

Thridace.—Inspiss. juice of *Lactuca sativa*, var. capitata, L. Compositæ.—Brown pieces (less active than the German lactucarium).—CONSTIT.: Lactucine; hyoscyamine.—ACTION: Hypnot.; Sedat.; Narcot. (partic. in asthma, bronchitis, &c.).—USES: Cough mixtures, & as a mild substitute f. opium.—DOSE: 0.2–1 Gm. (3–15 grn.).—MAX. D.: 2 Gm. (30 grn.).—Alcoh. extr., 0.12–0.6 Gm. (2–10 grn.); Max. D.: 0.8 Gm. (12 grn.) single, 2 Gm. (30 grn.) daily.

do. —“German”—U.S.P. IX—Lumps or Powder.

“Lettuce Opium.”—Concrete milk-juice of *Lactuca virosa*, L. Compositæ.—Irreg., brown lumps; wax-like when cut; narcotic odor; bitter taste.—SOL.: Partly in W., A., E.—CONSTIT.: Lactucine; lactucerin (44%, B.P.C.); hyoscyamine; lactucopicin; lactucic acid; caoutchouc; volat. oil; mannit; gum, &c.—ACTION: Anod.; Sed.; Hypn.—USES: Nervousn., cough, &c.,

where opium inadvisable.—DOSE: *Hypn.*, & *anod.*, 0.3–1 Gm. (5–15 grn.); *sed.*, 0.12–0.3 Gm. (2–5 grn.).—MAX. D.: 0.5 Gm. (8 grn.) single; 1 Gm. (15 grn.) p.d.—Tr. (1:2) 1–2 cc. (15–30 M).—CAUT.: Keep dry.

Lactucerin

Lactucon.— $C_{28}H_{44}O_2 = 412.49$.—Fr. *Lactuca virosa*.—Yellowish-wh. cryst.—SOL.: A., E.—MELT.: Abt 200° C.

Lactucin

Bitter prin. fr. *lactucarium*.—Fine, wh. scales.—SOL.: A.; sltly W.—ACTION: Sed.; *Hypn.*—DOSE: 0.06–0.3 Gm. (1–5 grn.).

LACTUCON—see Lactucerin

LACTYL-*p*-PHENETIDIN—see Lactophenin

Lactytropeine Nitrate

$C_8H_{14}NO.CO.CH(OH).CH_3.HNO_3 = 276.23$.—Wh., cryst. powd.—SOL.: A., W.—ACTION: Cardiac Tonic.

LADY'S SLIPPER—see *Cypripedium*

LAMB MINT—see Peppermint

LANAIN, LANALIN, or LANESIN—see Lanum, Anhydrous

LANICHOL, or LANIOL—see Lanum, Anhydrous.

LANOLIN—see Lanum

LANOLIN, ANHYDROUS—see Lanum, Anhydrous

LANTHANITE, ARTIFICIAL—see Lanthanum Carbonate

Lanthanum

La = 139.00; discovered by Mosander in 1839.—Eas. mall. & ductile, wh. metal; oxid. rapidly in air; decomp. W.—SOL.: Acids.—SP. GR.: 6.15 at 15° C.—MELT.: 810° C.

Lanthanum Carbonate

Artificial Lanthanite.— $La_2(CO_3)_3 + 3H_2O = 512.06$.—Wh., cryst. powd.—SOL.: Eas. dil. mineral acids; insol. W.—USES: *Techn.*, in manuf. incandescent mantles.

Lanthanum Chloride

$LaCl_3 + 7H_2O = 371.49$.—Wh., transp., hygrosc. cryst.—SOL.: Very eas. W., A.

Lanthanum Nitrate

$La(NO_3)_3 + 6H_2O = 433.12$.—Colorl., gran. mass.—SOL.: Very eas. W., A.—Possesses bactericidal properties.—CAUT.: Keep well stoppered.

Lanthanum Oxalate

$La_2(C_2O_4)_3 = 542.03$ + variab. quant. aq.—Wh., cryst. powd.—Insol. W.

Lanthanum Oxide—Anhydrous

Lanthanum Trioxide; Lanthanum Sesquioxide.— $La_2O_3 = 326.00$.—Almost wh., amorph. powd.—SOL.: Eas. in dil. mineral acids; insol. W.—USES: Inst. of & better than lime in oxyhydrogen lights; manuf. incandesc. mantles.

LANTHANUM SESQUIOXIDE—see Lanthanum Oxide, Anhydrous

Lanthanum Sulphate

$La_2(SO_4)_3 + 9H_2O = 728.32$.—Wh. cryst.—SOL.: Sltly W.

LANTHANUM TRIOXIDE—see Lanthanum Oxide, Anhydrous

Lanum

Adeps Lanæ Hydrosus U.S.P. X, Merck; Hydrous Wool-fat; Lanolin.—A superior wool-fat w. 25%–30% W., U.S.P. (30% W., B.P.; 25% W., Fr. Cod.) specially prep'd f. medical & pharmaceutical uses.—Yellowish-wh., unct. mass; slt odor.—SOL.: C., E., w. turb.; insol. W.—USES: Neutral, nonirritat., permanent, emoll. & base f. ointments & creams; rapidly absorbed by the skin.

Lanum Anhydrous

Adeps Lanæ U.S.P. X, Merck; Anhydrous Lanolin; Wool Fat; Oesipos; Agnin; Alapurin; Agnolin; Lanalin; Laniol; Lanain; Lanesin; Lanihol.—Purified wool-fat fr. *Ovis aries* (Sheep).—Yellowish, tenacious, semi-solid fat; peculiar odor; consists of cholesterin- & isocholesterinesters of the higher fatty acids.—SOL.: B., C., E., CS_2 , acetone, benzin; spar. cold A., more sol. in boil'g A. (1:75, B.P.C.).—MELT.: 38°–42° C., U.S.P.; abt 40° C., B.P.—USES: As of the preced.

Lanum Cream Merck

Specially prepared as a soothing, healing applic'n f. chafed, irritated, or itching surfaces, chapped hands & face, sunburn, & other (minor) burns.

LAPIS CALAMINARIS—see Calamine

LAPIS CANCRORUM—see Crabs' Eyes

LAPIS DIVINUS—see Copper Aluminated

LAPIS-LAZULI—see Lazurite

Lappa—N. F. V; B.P.C.

Burdock; Clotbur; Bardana.—Dried first-year root (herb & seed are also used, but are not official) of *Arctium Lappa*, L., or of *Arctium minus*, Bernhardt, Compositæ.—HABIT.: Europe; Northern Asia; naturalized in N. America.—CONSTIT.: *Root*: Volat. oil; tannin; bitter principle; inulin & tannin.—USES: *Root*: Aper.; Diuret.; Diaphor.; Alter.; Depurative.—*Extern.*, also f. swellings, hemorrhoids, burns, &c., & as a hair-grower.—*Herb*: Aper.; Diuret.; Antiscrofular; antisyphil.; Antirheumat.—*Extern.*, mixed w. oil as appl. to atonic ulcers.—*Seeds*: Aper.; large doses Purgat.—DOSE: *Root*: 1–6 Gm. (15–90 grn.); aver. dose 2 Gm. (30 grn.).—Alcoh. extr., 0.25–0.5 Gm. (4–8 grn.).—Fl'dextr., 1–4 cc. (15–60 M).

Larch—B.P.C.

Bark of *Larix europea*, D. C., Coniferae.—HABIT.: Southern & Central Europe; cultiv. in Britain.—CONSTIT.: Larixin (larixinic acid); tannin.—ACTION: Astring.; Diuret.—USES: Chron. bronchitis; as intestinal astringent.—DOSE: Tr. (1:5) 1.3–2 cc. (20–30 M).

LARCH TURPENTINE—see Turpentine, Venice

Lard—U.S.P. X; B.P.

Adeps; Axungia Porci.—Prepared purified intern. fat fr. abdomen of the hog, *Sus scrofa*, var. domesticus, Gray.—SOL.: B., C., E., CS₂, petrol. E.; v. sl'tly in A.; insol. W.—SP. GR.: Abt 0.917 at 25° C., U.S.P.—MELT.: 36°–42° C., U.S.P.—USES: As emollient; also pharm. in manuf. ointments.—CAUT.: Keep cool, & in tight containers.

Lard Benzoinated—U.S.P. X; B.P.

Prepared by heat'g lard w. benzoin powd. (1%, U.S.P.; 3%, B.P.).—USES: Skin affect.; as vehicle f. other medicinal agents, & in manuf. ointments.

LARGE FENNEL—see Fennel

LARICIN—see Agaricin

LARK'S-CLAW; LARK'S-HEEL—see Larkspur

LARKSPUR—see Staphisagria

Larkspur—N.F. V

Knight's Spur; Lark's-heel; Lark's-claw; Staggerweed.—Dried ripe seeds of *Delphinium Ajacis*, L., Ranunculaceæ.—HABIT.: Central Europe; cultiv. in U. S.—CONSTIT.: Calcatripine, volat. oil, gum, resin, fixed oil, gallic acid, & aconitic acid.—ACTION: Anthelmintic; Diuret.; Aperient; Emmenag.—USES: Intern., dropsy, spasmodic asthma, & calculus.—Extern., for pediculi.—DOSE: Fl'dextr., 0.06–0.3 cc. (1–5 M).—ANTID.: Stomach siphon, ammonia, digitalis, tannin, brandy, &c.

Larosan

Casein-Calcium.—Fine, odorl.; tastel., wh. powd.; 2.5% CaO.—SOL.: W.—ACTION: Dietetic.—USES: Disturbances of nutrition, & in diarrh. (partic. of nurslings & childr.).—Larosan milk made by stirr'g 20 Gm. larosan w. abt 150 cc. fresh milk, then add'g 350 cc. milk & boil'g.

LARVACIDE = Chlorpicrin

LASURITE—see Lazurite, Mineral

Laudanine

C₁₇H₁₅N(OCH₃)₃OH = 343.31.—Alkaloid fr. opium.—Yellowish-wh., cryst. powd.—SOL.: B., C.; hot A.; sl'tly E.—MELT.: 165°–166° C.—ACTION: Tetanic, like strychnine.—ANTID.: Tannin, emetic, or stomach tube.

Laudanosine

n-Methyltetrahydropapaverine.—C₁₇H₁₅N(OCH₃)₄ = 357.33.—Alkaloid fr. opium.—Yellowish-wh., cryst. powd.—SOL.: A., C., E.; boil. B.; insol. W., alkalies.—MELT.: 90°–92° C.—ACTION: Tetanic poison; not used therap.

Laurel Berries—B.P.C.

Bay Berries; Sweet Bay; Bay; Noble Laurel; Bayberry.—Ripe fruit of *Laurus nobilis*, L., Lauraceæ.—HABIT.: Mediterranean region; cultiv. in Mexico.—CONSTIT.: 1% volat., & abt 30% fixed, oil (B.P.C.); proteins; starch.—ACTION: Stomachic; Spice.—USES: Applic. to insect bites & stings; also in leucorrh.—Fixed

oil (expressed oil of bay) in rheum.; vol. oil as odorant f. toilet preparations.

LAUREL CAMPHOR—see Camphor

LAURENE—see Pinene, Dextrogyrate

LAUROCERASUS—see Cherry-Laurel

LAUTH'S VIOLET—see Thionine

Lavender—Fr. Cod.

Garden Lavender; True Lavender.—Flowers of *Lavandula vera* D. C., Labiatae.—HABIT.: Mediterranean region.—CONSTIT.: Volat. oil.—USES: Stim.; Carmin.; Nervine; Errhine.—Also f. fumigation, perfumery, to keep moths fr. clothes, & manuf. of oil.—DOSE: 1–2 Gm. (15–30 grn.).

LAYOR-CARANG—see Agar

Lazurite—Mineral

Lasurite; Lapis-Lazuli.—OCCUR.: Badakshan, Afghanistan; Lake Baikal; Chili.—COMPOS.: A sulphuriferous calcium-sodium-aluminum silicate allied to hauynite.—LUSTER: Vitr.—COLOR: Berlin-blue or azure-blue, violet-blue, or greenish-blue.—CLEAV.: Imperfect.—HARDN.: 5–5.5.—SP. GR.: 2.38–2.45.—USES: As semiprecious stone; f. vases, ornaments, jewelry, etc.

Lead Merck—C.P., Free fr. Silver—Granular

Pb = 207.20.—Bluish-gray, soft metal.—SOL.: HNO₃.—MELT.: Abt 330° C.—SP. GR.: 11.4 at 15° C.

MAXIMUM OF IMPURITIES

Sb or Sn	0.00%
Silver (Ag)	0.001%
Other Heavy Metals	0.10%

USES: Dry assay of ores, espec. those cont'g Au & Ag; reducer, partic. f. Fe previous to its oxidimetric determination.

do. Merck—Sheets

USES: as solder; w. As in making shot; manuf. Pb salts; making cables & water pipes; insulator in electrotechnic apparatus; lining acid-proof vessels; storage batteries; manuf. wh. lead, &c.

do. Powd. & Impalpable Powd.

USES: Testing oils (Livache).

Lead Acetate Merck—Reagent

Pb(C₂H₃O₂)₂ + 3H₂O = 379.32.—Colorl., slowly efflorescent cryst.—SOL.: Eas. in 2 W.

MAXIMUM OF IMPURITIES

Insol. Matter	Trace
Chloride (Cl)	0.000%
Nitrate (N ₂ O ₅)	0.002%
Alkali & Earths	0.050%
Copper (Cu)	0.000%
Iron (Fe)	0.001%

USES: Determ. CrO₃, H₂MoO₄; sensit. reag. f. H₂S gas (1:200000 detected by reagent paper); clarifying agent in optical determinations; testing liq. petrolatum f. S comp'ds; prepar. lead paper; reag. f. tannic & gallic acids (Buchner; Guyard), picric acid (Christel), cottonseed oil (Deiss; Labiche), wool & silk

fibers (Lassaigne), dextrin (Lipp), albumin & picrotoxin (Palm), saccharose (Rothenfuser), glucose (Rubner).

Lead Acetate Merck—C.P.—Cryst.

Normal, or Neutral, Plumbic Acetate; Sugar of Lead.— $\text{Pb}(\text{CH}_3\text{COO})_2 + 3\text{H}_2\text{O} = 379.32$.—Effloresc., colorl., shin., transpar. cryst.—**SOL.**: Eas. in abt 2 W.

MAXIMUM OF IMPURITIES

Insol. Matter.....	Trace
Chloride (Cl).....	0.003%
Alkali & Earths.....	0.070%
Copper (Cu).....	0.001%
Iron (Fe).....	0.002%

USES: As of the Reagent, above.

do. Merck—Basic—C.P.—For Sugar Analysis

Dibasic Lead Acetate.—Approx. $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{Pb}(\text{OH})_2 = 807.68$.—Heavy, wh. or alm. wh. powd.—**SOL.**: W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Moisture.....	2.000%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.003%
Copper (Cu).....	0.002%
Iron (Fe).....	0.004%

USES: Chiefly in sugar anal. to remove coloring matters, etc., fr. soluts bef. polarizing; clarifying & decolorizing other soluts.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

Colorl., transpar., effloresc. cryst. or granules, or wh. powd.; acetous odor; sweet, metal. taste.—**SOL.**: 1.4 W., 38 A. at 25° C., 0.5 boil. W., & freely in G., U.S.P.—**MELT.**: 75° C. when rapid. heated, & decomp. above 280° C., U.S.P.—**ACTION:** Astring. Styp.; Antihidr.—**USES:** *Intern.*, diar., dysent.; gastric, uterine, & intest. hemorrhages; in broncho-blennorrhea, pulmon. edema, aortal aneurism, & phth. nightsweats.—*Extern.*, as astring. eye lotion, & inject. or wash (1:100–1:500 W.); in gonorrh. (1–5:1000 W.).—**DOSE:** 0.03–0.25 Gm. ($\frac{1}{2}$ –4 grn.), us'y comb. w. opium; aver. dose 0.06 Gm. (1 grn.); 0.06–0.3 Gm. (1–5 grn.) B.P. For children, 0.003 Gm. ($\frac{1}{20}$ grn.) f. ea. yr of age.—**MAX. D.**: 0.3 Gm. (5 grn.).—**CAUT.**: Should not be used over long periods on account of danger of lead poisoning.—**VETER. MED.**, *intern.* as hemostatic; *extern.* in wounds, burns, ulcers, & astringent in cancer of the frog & fistulas of the cartilages of the hoof; doses, *cattle*, 1–5 Gm. (15–75 grn.); *horses*, 2–10 Gm. ($\frac{1}{2}$ –2 $\frac{1}{2}$ dr.); *goats, sheep & pigs*, 0.2–1 Gm. (3–15 grn.); *dogs*, 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).—**ANTID.**: Emetics, stomach siphon; sodium or potassium or magnesium sulphate; milk, albumin, opium (in pain), lumbar inj. of cocaine hydrochl. (0.03 Gm. [$\frac{1}{2}$ grn.] to 3 cc. [45 M] W.).—**INCOMP.**: Acids, soluble sulphates, citrates, tartrates, chlorides, or carbonates; alkalies, tannin, phosphates, resorcinol, salicylic acid, phenol, chloral hydrate, sulphites, vegetable infusions & tinctures.—**CAUT.**: Poison!

do. Merck—Technical—Cryst., Gran., or Powd.

Salt of Saturn.—Colorl. cryst. or wh. powd.—**USES:** *Techn.*, widely in dyeing & printing cottons; weighting silks; pigments; manuf. varnishes & chrome yellow; lead-acetate paper, &c.

Lead Acetate—Tribasic

$\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{PbO} + \text{H}_2\text{O} = 789.68$.—Wh. powd.—**USES:** *Techn.*, for weighting silks.

LEAD ACETATE MONOBASIC—see Lead Subacetate

Lead Acetate Paper

Wh. paper impregn. w. a solut. $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$.—**USES:** Detect. H_2S & alkali sulphides (black color w. much, brown color w. little, H_2S).

Lead Antimonate

Naples Yellow.—Orange-yellow powd.—**USES:** *Techn.*, as pigment in oil painting; staining glass, crockery, & porcelain.

Lead Arsenate

$\text{PbHAsO}_4 = 347.17$.—Wh. powd.—**SOL.**: HNO_3 , caustic alkalies; insol. W.—**USES:** As constituent of various insecticides for larva of gypsy moth, boll weevil, etc.

Lead Arsenite

$\text{Pb}(\text{AsO}_2)_2 = 421.12$.—Wh. powd.—**SOL.**: HNO_3 ; insol. W.—**USES:** As insecticide, like the arsenate.

Lead Benzoate

$\text{Pb}(\text{C}_7\text{H}_5\text{O}_2)_2 + \text{H}_2\text{O} = 467.37$.—Wh., cryst. powd.—**SOL.**: Sltly W.

LEAD BICHROMATE—see Lead Dichromate

Lead Borate Merck—C.P.—Powd.

$\text{Pb}(\text{BO}_2)_2 + \text{H}_2\text{O} = 311.02$.—Wh. powd.—**SOL.**: Dil. HNO_3 ; insol. W.

MAXIMUM OF IMPURITIES

Carbonate (CO_2).....	0.10%
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.050%
Sulphate (SO_3).....	0.020%
Alkali Salts.....	1.0%
Heavy Metals.....	Traces

do. Merck

Wh. powd.—**SOL.**: Dil. HNO_3 .—**USES:** *Techn.*, drier f. varnishes & paints; w. other metals (e.g., Ag) in galvanoplasty, for production of conducting coatings on glass, pottery, porcelain, & chinaware.

Lead Bromate

$\text{Pb}(\text{BrO}_3)_2 + \text{H}_2\text{O} = 481.06$.—Colorl. cryst.—**SOL.**: Hot W.

Lead Bromide Merck

$\text{PbBr}_2 = 367.04$.—Wh. powd.—**SOL.**: Hot W.

Lead Butyrate

$\text{Pb}(\text{C}_4\text{H}_7\text{O}_2)_2 = 381.35$.—Wh., viscid mass.

LEAD CARBOLATE—see Lead Phenate

Lead Carbonate Merck—C.P.

Sub-, or Basic, Lead Carbonate; Ceruse; Cerussa.—Approx. $(\text{PbCO}_3)_2 \cdot \text{Pb}(\text{OH})_2 = 775.63$.—Wh., heavy powd.—SOL.: Acetic acid, dil. HNO_3 ; insol. W., A.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Nitrate (N_2O_5).....	0.005%
Earths, Alkalies & Zinc.....	0.400%
Lead Silicate.....	0.025%

do. Merck—N.F. IV

White Lead; Flake Lead.—Wh. powd.—SOL.: As preceding.—ACTION: Sed.; Astring.—USES: *Extern.*, dust. powd. f. burns; 10%–30% oint. f. indol. ulc. skin dis., inflamed excoriated surf., erysip., & carbuncles; injurious as face powder.—*Techn.*, as pigment in W. colors & oil paints; in the latter, w. raw linseed oil, poppy-seed oil, fat varnishes; also in cements, & making lead-carbonate paper & putty.—CAUT.: Poison!

Lead Chloride Merck—C.P.

$\text{PbCl}_2 = 278.12$.—Wh., cryst. powd.—SOL.: 95 W. at 25° C.; 30 boil. W.; insol. A.—MELT.: 498° C.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5).....	0.003%
Sulphate (SO_3).....	0.010%
Alkalies & Earths.....	0.050%
Copper (Cu).....	0.000%
Iron (Fe).....	0.001%

USES: *Chem.*, test'g f. Ag (Blunt), minerals (Breon), alkaloids (Palm), & carbonates (Schulze).—*Medic.*, *extern.*, in 0.5% solut. & 1:15–30 oint. in cancer, hyperesthesia, painful swellings, etc. The *techn.* grade is used in manuf. various pigments (Pattison's wh. lead, Verona Yellow, Turner's Patent Yellow [lead oxychloride]).

Lead Chromate Merck—C.P.

$\text{PbCrO}_4 = 323.20$.—Yellow or yellowish-brown powd., or brown lumps.—SOL.: In soluts. fixed alkalies, & in HNO_3 ; insol. W., NH_4OH .

MAXIMUM OF IMPURITIES

Water-sol. Substcs.....	0.100%
Organic Comp'ds.....	0.02%

USES: Ultimate anal. of organ. substcs cont'g S, halogens, or P, & material diffic. of combustion.—CAUT.: When used in ultimate analysis PbCrO_4 should first be carefully ignited in a current of O (air is not so efficient) to remove all traces of CO_2 or organic matter.

do. —Techn.—Precipitated

Chrome-, Paris-, Leipzig-, King's-, Cologne-, New-, or Lemon-, Yellow.—Fine, lemon-yellow powd.—SOL.: Solut. NaOH ; insol. W.—USES: *Techn.*, pigment (in oil paints & W. colors), printing fabrics, dyeing, & decorating porcelain & chinaware.

Lead Chromate Red—Basic

Chrome, or Persian, Red; Austrian Cinnabar.— $\text{PbCrO}_4 \cdot \text{PbO} = 546.40$.—Fine red powd.—Insol. W.—USES: *Techn.*, as pigment.

Lead Citrate

$\text{Pb}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 3\text{H}_2\text{O} = 1053.79$.—Wh., cryst. powd.—SOL.: W.

Lead Cyanide

$\text{Pb}(\text{CN})_2 = 259.23$.—Yellowish-wh. powd.—SOL.: KCN solut.; insol. W.—USES: *Techn.*

Lead Dichromate

Lead Bichromate.— $\text{PbCr}_2\text{O}_7 = 423.20$.—Reddish-brown powd.—Insol. W.; is decomp. by latter.—USES: *Techn.*, as pigment.

LEAD DIOXIDE—see Lead Oxide, Brown

Lead Ethylsulphate—Liquid—66% Solut.

Lead Sulphovinate.— $\text{Pb}(\text{C}_2\text{H}_5\text{SO}_4)_2 + 2\text{H}_2\text{O} = 493.45$.—Colorl. liq.—SOL.: W.

Lead Ferrocyanide

$\text{Pb}_2\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O} = 680.37$.—Yellowish-wh. powd.—Insol. W.

Lead Formate

$\text{Pb}(\text{CHO}_2)_2 = 297.23$.—Lustrous, wh., rhomb. prisms, or need.—SOL.: Abt 65 W.; insol. A.

LEAD GLANCE—see Galenite

LEAD HYDRATE, or HYDROXIDE—see Lead Oxide, Hydrated

Lead Hypophosphite

$\text{Pb}(\text{H}_2\text{PO}_2)_2 = 337.31$.—Wh., cryst. powd.—SOL.: Sltly W.

Lead Iodide Merck—N.F. V—Powd.

$\text{PbI}_2 = 461.04$.—Heavy, bright-yellow, odorl., tastel. powd.—SOL.: Alkalies, conc. alkali acetates, KI solut. & $\text{Na}_2\text{S}_2\text{O}_3$ solut.; 1300 W. at 25° C., 200 boil. W.—ACTION: Resolvent; Alterative; Discutient.—USES: *Intern.*, in scrof., phthisis, glandular swellings, indolent ulcers, & syph.—*Extern.*, indol. ulcers & chron. joint & gland enlargem.—*Techn.*, bronzing, gold pencils, mosaic gold, printing, & in photography.—DOSE: 0.12–0.3 Gm. (2–5 grn.) sev'l t.p.d.—MAX. D.: 0.5 Gm. (8 grn.) single, & 1 Gm. (15 grn.) p.d.—APPL.: In oint. (1–2:10 lanum or fat).—CAUT.: Keep fr. light.

Lead Lactate Merck

$\text{Pb}(\text{C}_3\text{H}_5\text{O}_3)_2 = 385.31$.—Heavy, wh., cryst. powd.—SOL.: W.—CAUT.: Keep well stoppered.

Lead Linoleate—Fused

Yellowish-brown, plaster-like mass.—SOL.: C., & hot linseed oil.—USES: *Techn.*, in varnishes (1 part in 15–20 linseed oil at 120°–150° C.).

LEAD METAVANADATE—see Lead Vanadate

Lead Molybdate

$\text{PbMoO}_4 = 367.20$.—Yellow powd.—SOL.: HNO_3 when freshly pptd; insol. W.

LEAD MONOSULPHIDE—see Lead Sulphide, Precipitated

LEAD MONOXIDE—see Lead Oxide, Yellow

Lead Nitrate Merck—Reagent

$\text{Pb}(\text{NO}_3)_2 = 331.22$.—Wh. transluc. cryst. or cryst. powd.—**SOL.**: Abt 2 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Insol. Substcs.	0.000%
Chloride (Cl)	0.001%
Alkalies & Earths.	0.050%
Copper (Cu)	0.002%
Iron (Fe)	0.001%
Silver (Ag)	0.000%

USES: Detect'g sulphides; prepar'g colorimetric standards f. determ'g Pb; prepar'g other Pb salts.

Lead Nitrate Merck—C.P.—Cryst.

$\text{Pb}(\text{NO}_3)_2 = 331.22$.—Wh., translucent cryst. or cryst. powd.—**SOL.**: Abt 2 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Insol. Substcs.	0.000%
Chloride (Cl)	0.002%
Alkalies & Earths.	0.10%
Copper (Cu)	0.003%
Iron (Fe)	0.003%

USES: As of the Reagent, above.

do. Merck—U.S.P. VIII—Pure

Colorl. or wh. cryst., granules, or powd.—**SOL.**: 1.85 W., at 25° C., 0.75 boil. W., & alm. insol. A.—**ACTION:** Antisep.; Astring.—**USES:** *Intern.*, diar., dysent., or intest. hemorrhage.—*Extern.*, in 1:10 oint.; sore nipples, cracked lips, chapped hands; aqu. solut. in ulc., or 1:100 inj. in gonorr. & leucorr.—**DOSE:** 0.06–0.1 Gm. (1–1½ grn.).—**MAX. D.**: 0.1 Gm. (1½ grn.) single; 0.3 Gm. (5 grn.) p.d.—**VETER. MED.**, radiating cancer, mallenders, & panaritias.

do. Merck—Technical

USES: Manuf. matches & special explosives; as mordant in dyeing & printing calico; preparing other lead salts; manuf. pigments f. paints & lakes; manuf. hyponitric acid; mordant f. staining mother-of-pearl horn (combs); oxidizer in tar-dye industry; sensitizer in photography; manuf. toys (winter scenes in glass, &c.); decolorizing sugar in beet sugar refineries; process engraving.

Lead Nitrite—Basic

Lead Subnitrite.—Variable compos.; chiefly $3\text{PbO} \cdot \text{N}_2\text{O}_3 \cdot \text{H}_2\text{O}$.—Light-yellow powd.—**SOL.**: Dil. HNO_3 .

Lead Oleate Merck

Approx. $\text{Pb}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2 = 769.91$.—Granular, wax-like mass.—**SOL.**: A., B., E., turp., B.P.C.—**ACTION:** Antisep.; Sedat.; Mild Astring.—**USES:** Oint. w. oleic acid f. indol. ulc. & imperfectly granulating sores, & inflamed & excoriated surfaces; w. starch in eczema.—*Techn.*, in lacquers.

LEAD ORTHOPHOSPHATE, NORMAL—see Lead Phosphate

LEAD ORTHOPLUMBATE—see Lead Oxide, Red

Lead Oxalate Merck

$\text{PbC}_2\text{O}_4 = 295.21$.—Heavy, wh. powd.—**INSOL.** W.—**USES:** Has been employed combined w. nitric (or acetic) acid as nitro-saccharate of lead f. diss. phosphatic calculi.

Lead Oxide Brown Merck—Reagent

Lead Super-, or Per-, or Di-, oxide.— $\text{PbO}_2 = 239.20$.—Dark-brown, amorph. powd.—**SOL.**: Hot dil. HCl (Cl evolved); insol. W.

MAXIMUM OF IMPURITIES

Acid-Insol. Impurities	0.300%
Water-Sol. Impurities	0.050%
Carbonate (CO_2)	0.000%
Chloride (Cl)	0.002%
Nitrate (N_2O_5)	0.003%
Sulphate (SO_3)	0.003%
Manganese (Mn)	0.0002%
Other Heavy Metals	Trace
Substcs not pptd by H_2S	0.50%

USES: Ultimate organic analysis, partic. of substcs cont'g S.; also f. detect'n & colorimetric determ'n of sm. quant. Mn in Fe & steel; separ. Cl & Br, & Co & Ni; detect'g tolidine, quebrachine, & apomorphine; reag. f. albumin (Blum), abrastol (Briand), bile pigments (Casali), aniline (Duples), morphine (Fleury), strychnine (Hagen; Marchand), free acids (Laborde), amines (Lauth), quinine (Polacci), & benzdine (Wolff).

Lead Oxide Brown Merck—C.P.—Free fr. Mn

Lead Super-, or Per-, or Di-, oxide; Anhydrous Plumbic Acid.— $\text{PbO}_2 = 239.20$.—Dark-brown, amorph. powd.—**SOL.**: Hot dil. HCl (Cl evolved); in HNO_3 w. addit'n of sugar, oxalic acid, or any o. reducer; insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Nitrate (N_2O_5)	0.010%
Sulphate (SO_3)	0.10%
Manganese (Mn)	0.000%
Substcs not pptd by H_2S	1.0%

USES: As of the Reagent, above.

do. Merck—Technical

DESCRIPT. & SOL. As preced'g.—Dark-brown powd.—**USES:** Electrodes; in batteries; oxidizer in manuf. dyes & intermediates; as discharge in dyeing w. indigo; manuf. rubber substitutes; w. amorphous P as ignition surface f. phosphorus-free matches; pyrotechny; manuf. pigments; purif. alcohol; mordant in dyeing.

Lead Oxide Hydrated Merck

Lead Hydroxide; Lead Hydrate.— $\text{Pb}_2\text{O}(\text{OH})_2 = 464.42$.—Wh., amorph. powd.—**SOL.**: Caustic alk., acetic acid, & HNO_3 .—**USES:** Chem. anal.

Lead Oxide Red Merck—C.P.

Red Lead; Minium; Plumbo-plumbic Oxide; Lead Orthoplumbate.— $\text{Pb}_3\text{O}_4 = 685.60$.—Heavy, orange-red powd.—**SOL.**: Excess glacial acetic acid; also in hot HCl (Cl evolved); insol. W., A.

MAXIMUM OF IMPURITIES

Carbonate	Traces
Manganese (Mn)	0.000%
Water-sol. Substcs	0.3%
Insol. Matter	0.3%

USES: Determ'g Mn & Fe in steel; separ. Fe fr. Ni, Co, Cu, & Pb; detect'g tartaric acid.

Lead Oxide Red Merck—N.F. V

Red Lead.— $\text{Pb}_3\text{O}_4 = 685.60$; us'y w. some PbO , & corresp. to not less than 31% PbO_2 .—Heavy, orange-red, odorl. powd.—**SOL.**: Glac. acetic acid, HCl , lactic acid (w. evol'n of CO_2 & acetaldehyde odor); insol. **W.**, **A.**—**USES**: Plasters & oint's.—*Techn.*, in manuf. colorl. glass, glaze f. faience, flux f. porcelain painting, protective paint f. iron & steel, oil-color f. ship paints, varnishes; coloring rubber; cement f. glass, gas, & steam pipes; matches; storage batteries; pencils f. writing on glass; manuf. lead peroxide, lead glass, &c.—**CAUT.**: Poison!

Lead Oxide Yellow Merck—C.P.

Litharge; Plumbous Oxide; Lead Protoxide; Massicot; Lead Monoxide.— $\text{PbO} = 223.20$.—Heavy, yellow to yellowish-red, odorl., tastel. powd. or minute scales.—**SOL.**: Acetic acid, HNO_3 , & warm soluts fixed alkali hydroxides; insol. **W.**, **A.**

MAXIMUM OF IMPURITIES.

Substs Insol. in Acetic Acid..	0.500%
Vol. Substs.....	0.500%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.005%
Alkalies & Earths.....	0.300%
Aluminum (Al).....	0.100%
Copper (Cu).....	0.002%
Iron (Fe).....	0.004%
Silver (Ag).....	0.001%

USES: Anal. of organ. substs cont'g halogens; as flux in fusing minerals; saponifying fats; prepar'g solut. lead subacetate.

do. Merck—U.S.P. X

DESCRIPT. & **SOL.**: As preced'g.—**USES**: Ointments, plasters; prepar'g solut. lead acetate.

do. Merck—Technical

Litharge.—**USES**: Glazing pottery; glass flux f. painting on porcelain & glass; manuf. Pb salts, lead glass, varnishes; w. glycerin as metal cement; producing iridescent colors on brass & bronze; coloring sulphur-containing substs (hair, nails, wool, horn, &c.); manuf. artif. tortoise shell & horn; pigment f. rubber; manuf. boiled linseed oil & preservative paints; oxidizing agent in organ. synthesis.

Lead Oxychloride

Cassel Yellow.—Approx. $\text{PbCl}_2 \cdot 7\text{PbO}$; also contains traces of metal. Pb .—Yellow cryst. powd.—Insol. **W.**—**USES**: Pigment.

LEAD PEROXIDE—see Lead Oxide, Brown

Lead Phenate

Lead Carbolate.— $\text{Pb}(\text{OH})\text{OC}_6\text{H}_5 = 317.28$.—Yellowish to grayish-wh. powd.—**SOL.**: HNO_3 ; insol. **W.** & **A.**

Lead p-Phenolsulphonate

Lead Parasulphocarbonate.— $\text{Pb}(\text{C}_6\text{H}_4\text{OHSO}_3)_2 + 2\text{H}_2\text{O} = 589.49$.—Wh., lustr. need.—**SOL.**: **W.**, **A.**—**ACTION**: Astring.; Antisep.—**USES**: *Extern.*, skin dis., ulc., inflam., &c

Lead Phosphate Merck—C.P.

Normal Lead Orthophosphate.— $\text{Pb}_3(\text{PO}_4)_2 = 811.68$.—Wh. powd.—Insol. **W.**

MAXIMUM OF IMPURITIES

Carbonate (CO_2).....	None
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.005%
Sulphate (SO_3).....	0.20%
Alkali Earths.....	Traces

Lead Phosphite

$\text{PbHPO}_3 = 287.25$.—Wh. powd.—Insol. **W.**

LEAD PLATINOCYANIDE—see Platinum & Lead Cyanide

LEAD PROTOXIDE—see Lead Oxide, Yellow

Lead Resinate—Fused, or Precipitated

Brown, lustrous, translucent lumps, or fine, yellowish-white powd.—**USES**: *Techn.*, as drier in varnishes (2–3 parts dissolved in 100 linseed oil at 120° – 150° C.).

LEAD RHODANIDE—see Lead Sulphocyanate

Lead Salicylate

$\text{Pb}(\text{C}_6\text{H}_4.\text{OH}.\text{COO})_2 + \text{H}_2\text{O} = 499.37$.—Wh. cryst.—**SOL.**: Hot **W.**, & **A.**

Lead Sesquioxide Merck

$\text{Pb}_2\text{O}_3 = 462.40$.—Reddish-yellow insol. powd.

Lead Silicate

$\text{PbSiO}_3 = 283.30$.—Obt. by fusing PbO w. SiO_2 .—Wh., cryst. powd.—Insol. **W.**; decomp. by acids.—**USES**: Manuf. crystal & flint glass, strass, fluxes f. painting on glass & porcelain, enamels & glaze f. earthenware; fireproofing fabrics; in paints, &c.

Lead Silicofluoride

$\text{PbSiF}_6 + 2\text{H}_2\text{O} = 385.33$.—Colorl. cryst.—**SOL.**: **W.**

LEAD SOZOIODOLATE—see Soziodole-Lead

Lead Stearate

$\text{Pb}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 = 773.94$.—Wh. powd.—**SOL.**: Hot **A.**; insol. **W.**—**MELT.**: Abt 125° C.—**USES**: *Extern.*, dust'g powd. in intertrigo & weep'g ecz.

Lead Subacetate Merck

Monobasic Lead Acetate.— $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot \text{Pb}(\text{OH})_2 = 566.48$.—Wh. powd.—**SOL.**: Eas. **W.** w. alkal. reaction; becomes insol. on expos. to air.—**CAUT.**: Keep well stop'd.

do. Merck—Solution—U.S.P. X

Goulard's Extract.—Not less than 18% Pb as lead subacetate (approx.: $\text{Pb}_2\text{O}[\text{CH}_3\text{COO}]_2 = 548.47$; made directly fr. 22 lead acetate, 14 lead oxide, & **W.** to 100.—Clear, colorl. liq.; sweetish astring. taste.—**MISC.**: **W.**—**Sp. GR.**: Abt 1.25 at 25° C.—**ACTION**: Astring.; Antisep.

do. Solution, Dilute—U.S.P. IX

Lead Water.—Fr. 1 solut. + 25 **W.**—Clear, colorl. liq.; sweet astring. taste.—**ACTION**:

Astring.; Antisep. Sed.—USES: *Extern.*, burns, blisters, sprains, bruises, inflam., eye-washes, erysip., gonorr. inject. &c.—INCOMP.: Alkalies, alkali carbonates, H_2SO_4 , sulphates, HCl, chlorides, tannin & tannates, albuminous substcs, acacia, &c.

do. Strong Solution—B.P.

Goulard's Extract.—Made fr. 25 lead acetate, 17.5 lead oxide, & W. to 100.—Clear, colorl. liq.; alkal. react.; sweet, astring. taste.—SP. GR.: 1.275 at 15.5° C.—ACTION: Astring.—USES: Local, as astring. in lotions, (1%–5%), eye-washes (0.5%–1%), injections, (1%–5%); in mixt. w. cooling liniments or oils (1–5:30) f. burns; w. lard (1:10) f. inflammations.

do. Diluted Solution—B.P.

Goulard's Lotion or Water.—Fr. 1 strong solut. & 80 W.

LEAD SUBCARBONATE—see Lead Carbonate

LEAD SUBNITRITE—see Lead Nitrite

Lead Sulphate Merck—C.P.

$PbSO_4$ = 303.26.—Wh., heavy cryst. powd.—SOL.: Solut. NaOH; in NH_4OH w. add'n of tartaric acid; solut. amm. acetate or tartrate; v. sltly W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.000%
Alkalies & Earths.....	0.100%
Copper (Cu).....	0.002%
Iron (Fe).....	0.003%
Vol. Substcs.....	0.50%
Water-sol. Substcs.....	0.150%

do. Merck

White powd.—SOL.: As of the preceding.—USES: *Techn.*, inst. of white lead as pigment; w. zinc in galvanic batteries; manuf. minium; in lithography; prep'g rapidly drying oil varnishes; weighting fabrics.

Lead Sulphide Merck—C.P.

Plumbous Sulphide; Lead Monosulphide.— PbS = 239.26.—By ppting Pb salts w. H_2S .—Black powd.—SOL.: HNO_3 ; hot dil. HCl; insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.01%
Sulphate (SO_3).....	Trace
Copper (Cu).....	0.00%
Iron (Fe).....	0.01%

do. —Precipitated

DESCRIPT. & SOL.: As of preced'g.—USES: *Techn.*, decoloriz. plant acids; glazing earthenware.

Lead Sulphite Merck

Normal Plumbic Sulphite.— $PbSO_3$ = 271.26.—Crumbly, wh., powd.—INSOL. W.—ACTION: Antisep.; Astring.—USES: *Extern.*, in erysip., scabies, ecz., inj. surf., & var. skin affect., as dust'g powd., or in 1%–10% oint.—*Techn.*, artist's colors.

LEAD SULPHOCARBOLATE—see Lead *p*-Phenol-sulphonate

Lead Sulphocyanate Merck—Powd.

Lead Sulphocyanide, Thiocyanate, or Rhodanide.— $Pb(SCN)_2$ = 323.35.—Wh., odorl. powd.—SOL.: Abt 50 boil., abt 200 cold, W., & in alkali hydroxides & alkali sulphocyanate soluts.—USES: In reserve dyeing w. aniline black; safety matches; manuf. cartridges.

LEAD SULPHOCYANIDE—see Lead Sulphocyanate

LEAD SULPHOVINATE—see Lead Ethylsulphate

LEAD SUPEROXIDE—see Lead Oxide, Brown

Lead Tannate—Merck

Brownish-yellow, amorph. powd.—SOL.: Sltly W. or A.—ACTION: Astring.; Antisep.—USES: *Intern.*, chron. vesical diseases.—*Extern.*, wh. swell. of knee, gangr. ulcers, bed sores, excoriated surf., sore nipples, &c.—APPL.: In substce or in 10%–20% oint.

Lead Tartrate—Merck

$PbC_4H_4O_6$ = 355.25.—Wh. cryst. powd.—SOL.: KOH, HNO_3 ; insol. W., A., acetic acid, solut. ammon. acetate.

Lead Tetraethyl

$Pb(C_2H_5)_4$ = 323.40.—Colorl. liq.; burns w. an orange-colored flame w. green margin.—INSOL. W.—BOIL.: Abt 200° C., w. decomp.—SP. GR.: 1.62 at 15° C.—USES: *Techn.*, as addit'n to gasoline to prevent "knocking" in motors run by gasoline.

LEAD THIOCYANATE—see Lead Sulphocyanate

Lead Tungstate

Lead Wolframate (occurs also as a mineral).— $PbWO_4$ = 455.10.—Wh., insol. powd.—USES: Pigment.

Lead Vanadate

Lead Metavanadate, or Vanadinate.— $Pb(VO_3)_2$ = 405.20.—Yellow powd.—INSOL. W.

LEAD VANADINATE—see Lead Vanadate

LEAD WATER—see Lead Subacetate, Solution

LEAD WOLFRAMATE—see Lead Tungstate

Lead & Manganese Linoleate—Fused

Dark-brown, plaster-like mass.—SOL.: C., & hot linseed oil.—USES: *Techn.*, as drier in varnishes (1 part dissolved in 100 linseed oil at 120°–150° C.).

Lead & Manganese Resinate—Fused

Brownish-black, resin-like pieces.—SOL.: C., linseed oil.—USES: *Techn.*, as drier in varnishes (2–3 parts dissolved in 100 linseed oil, at 120°–150° C.).

Lead & Sodium Thiosulphate

Lead-sodium Hyposulphite.— $PbS_2O_3 \cdot 2Na_2S_2O_3$ = 635.56 (Lenz).—Sm., wh. heavy cryst.—SOL.: Thiosulphate soluts.—USES: *Techn.*, manuf. matches.

LEAF GREEN—see Chlorophyll

Lecithin Merck—From Eggs—Abt 90%

Ovo - lecithin; Lecithol; Phospho - lutein.— $C_{42}H_{84}NPO_9 = 777.93$ or, $C_{44}H_{90}NPO_9 = 807.99$.—Most important phosphorus-containing (3.8% B.P.C.) constituent of nervous tissue (brain substce); obt. fr. egg-yolk.—Important in the vital processes of plant & animal organisms.—Brownish yellow, waxy mass.—SOL.: Abt 10 cold absol. A., C., E., benzin, & fatty oils; less read. in B.; swells up in W. & in NaCl solut.—ACTION: Tonic.—USES: Anem., atrophy, & debil.; neurasth. & nervous dis.; tuberc., diab., tabes, general paral., various psychoses, hysteria, etc.; intramusc. in locomotor ataxia & general paral. of insane; also osteomalacia, rachitis, scrofula, chlorosis, migraine, nicotine amblyopia, functional impotence, disturbances of nutrition, &c.—DOSE: 0.25 Gm. (4 grn.) 3–4 t.p.d.; in mental affections up to 1 Gm. (15 grn.) p.d.—Subcut. or intramusc., 1–5 cc. (15–75 M) of 10% emulsion or solut. in olive oil or liq. paraffin ev. 2–3 days.—In VETER. MED. 0.5–1 Gm. (8–15 grn.) subcut. in cerebral inflam. & cerebrospinal meningitis in horses; also in tetanus, influenza, rabies, etc. In nervous distemper dogs, 0.1–0.5 Gm. ($1\frac{1}{2}$ –8 grn.)—INCOMP.: Alkalies.—CAUT.: Keep fr. light.

Lecithin-Cacao Merck—Tablets, 4 Grains Lecithin Each—Contains no Sugar

LECITHOL—see Lecithin

Legal's Solution—Test for Acetone in Urine

A fresh conc. solut. of sodium nitroprusside (abt 1:3) made sltly alkal. w. KOH.—With urine or a distillate cont'g acetone the solut. gives a red color changing to yellow; on adding excess of acetic acid the color changes to carmine red, violet, and finally to blue after 1–2 days.

Legumin

Plant Casein.—Nuclein substance fr. leguminous plant seeds.—Wh. or faintly yellowish, mealy, alm. odorl. powd. faintly acid towards litmus.—SOL.: v. dil. alkalies, acetic acid, & 10% solut. NaCl; alm. insol. W.

"LEGUMIN"—see Avenin

LEIOMOM—see Dextrin, Yellow

LEIPZIG YELLOW—see Lead Chromate

Leishman's Stain—For Blood—Wright's Modification

Add 1 Gm. methylene blue to 100 cc. 0.5% solut. $NaHCO_3$, sterilize in a steam sterilizer 1 hr, then place in a large dish & while heating on a steam bath add aqueous 1:1000 eosine yellowish solut. (about 500 cc. required) till mixt. becomes purple & shows a yellowish scum. Then collect ppt. & dry in incubator without washing. For use diss. 0.3 Gm. of the powd. in 100 cc. pure methyl alcohol & filter, then add to ev. 80 cc. filtrate 20 cc. methyl alc.

LEMON BALM—see Melissa

LEMON CHROME—see Barium Chromate

Lemon Peel—U.S.P. X; B.P.

Outer rind of fresh ripe fruit of *Citrus medica*, var. *limonum* (Risso) Hooker fil., Rutaceæ.—HABIT.: Northern India; cultiv. in California, West Indies, Italy, Spain, & o. tropical & antitropical countries.—CONSTIT.: Volat. oil; hesperidin; bitter extractive.—ACTION: Corrig.; Tonic; Refrig.; Antiscorbutic.—USES: Febrile & inflam. dis.; also in cookery & confectionery.

LEMON WALNUT—see Juglans

LEMON YELLOW—see Lead Chromate

Lenicet

Aluminum Acetate.— $Al_2O_3.(C_2H_3O_2)_6 = 456.20$.—Very fine, volumin., wh., very diffic. soluble, nonhygroscop. powd.—ACTION: Siccativ; Deodorant.—USES: Hyperidrosis, &c.—APPL.: Pure or in 20%–50% mixt. w. talcum.

Lenigallol

Pyrogallol Triacetate.— $(CH_3COO)_3C_6H_3 = 252.16$.—Wh. cryst. powd.—SOL.: Warm aqu. solut. alkalies w. decomp.; alm. insol. W.—MELT.: $165^\circ C$.—USES: As mild pyrogallol prep. in psoria., & partic. in moist, but not acute, ecz.—APPL.: In oint. (5–10:100 zinc paste).—INCOMPAT.: Alkalies; strong acids; oxidizers.

LENTISK—see Mastic

Leontodin

Extr. (concentration) fr. root *Taraxacum officinale*, Weber (Dandelion).—Dark-brown powd.—SOL.: A.—ACTION: Tonic; Diur.; Aper.—USES: Liver & spleen dis.—DOSE: 0.12–0.25 Gm. (2–4 grn.).

LEOPARD'S BANE—see Arnica Flowers

Lepidine

4-Methylquinoline; Cincholepidine.— $C_6H_4.C(CH_3):CH.CH:N = 143.13$.—Fr. cinchonine.—Oily liq., solid at $0^\circ C$; odor like that of quinoline; turns red-brown in light.—SOL.: All prop., A., B., E.; sltly W.—BOIL.: 258° – $263^\circ C$.—SP. GR.: 1.088 at $15^\circ C$.—USES: Manuf. cinchoninic acid & quinoline blue.—CAUT.: Keep fr. light.

Lepidolite—Mineral

Lithium Mica.—OCCUR.: Rôzna, Moravia; Sweden; Saxony; San Diego, (Cal.) U. S.—COMPOS.: $Si_3O_9Al_2(SiKNa)(F,OH)_2$.—CRYST. SYST.: Monosym.—LUSTER: Pearly W.—COLOR: Pink, violet, gray, wh., or yellowish.—STREAK: Wh.—FRACT.: Perfect basal.—HARDN.: 2.5–4.—SP. GR.: 2.8–2.9.—USES: Source of lithium preps.

Leptandra—N.F. V; B.P.C.

Culver's Root; Black Root.—Dried rhizome & roots of *Veronica* (Leptandra) *virginica*, L. Scrophulariaceæ.—HABIT.: North America.—CONSTIT.: Leptandrin; dimethoxycinnamic acid; verosterol; esters of cinnamic & paramethoxycinnamic acids; fatty acids; resin; saponin; tannin; mannit; dextrose.—ACTION: Purgat.; Emet.; Cholagogue; Alter.; Tonic.—USES:

Constip., liver dis., diar., & dysent.—Supposed to act like calomel.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose 1 Gm. (15 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—Hydro-alcoh. extr., 0.2–0.6 Gm. (3–10 grn.).—Tr., 2–5 cc. (30–75 M).

Leptandrin

Resinoid fr. rhizome *Veronica virginica*, L.—Brownish-yellow powd.—SOL.: A.—ACTION: Cholag.; Purg.; Alter.—USES: Chron. constip., duodenal indigest., torpid liver &c. Favorite w. Eclectics inst. of mercurials.—DOSE: Cholag. & alter., 0.06–0.3 Gm. (1–5 grn.); purg., 0.5 Gm. (8 grn.).

“LETTUCE OPIUM”—see *Lactucarium*, “German”

LETTUCE, ACRID, or STRONG-SCENTED, or WILD—see *Lactuca*

Leucine

Alpha-aminoisocaproic Acid.— $(\text{CH}_3)_2\text{CH} \cdot \text{CH}_2 \cdot \text{CH}(\text{NH}_2) \cdot \text{COOH} = 131.14$.—Fr. casein.—Wh. powd.—SOL.: Sltly W. v. sltly A.—MELT.: Abt 270° C., w. decomp.

Leucine Hydrochloride

$\text{C}_6\text{H}_{13}\text{NO}_2 \cdot \text{HCl} = 167.61$.—Wh. cryst.—SOL.: Eas. W.

Leucite—Mineral

OCCUR.: Italy; Brazil; U. S.; Vancouver Island.—COMPOS.: $(\text{SiO}_3)_2\text{AlK}$.—CRYST. SYST.: Reg.—LUSTER: Greasy vitr. to dull on the surface.—COLOR: Gray to wh.—STREAK: Wh.—FRACT.: Brittle; conch.; transluc. to opaque.—HARDN.: 5.5–6.—SP. GR.: 2.45–2.50.

LEUCOALIZARIN—see *Anthrabin*

LEUCOGEN—see *Sodium Bisulphite*, Technical

LEUCOINDOPHENOL—see *Indophenol White*

LEUCOLINE—see *Quinoline*

LEVANT WORMSEED—see *Santonica*

Levulose Merck—Cryst.

d-Fructose; Fruit Sugar.— $\text{CH}_2\text{OH} \cdot \text{CO} \cdot \text{COH}(\text{H}) \cdot \text{CH}(\text{OH}) \cdot \text{CH}(\text{OH}) \cdot \text{CH}_2\text{OH} = 180.13$.—Fr. cane sugar by hydrolysis.—Wh., levogyrate, cryst. powd.—SOL.: v. eas. W.; eas. A.—MELT.: 95°–105° C.—USES: Physiologico-chemical experiments; also as of the following.

do.—Powder, f. Diabetics

Dextrose-free levulose, specially prepared as a sweetener f. diabetics; it is eas. assimilated, & acts as a conserv. of albumin, provided the liver is not diseased.—Wh., sweet powd.—SOL.: Eas. W. & dil. A.; insol. absol. A., & E., B.P.C.—USES: Diab. (inst. of sugar); pulm. tuberc., infantile marasmus, scrofula, & malnutrition; also in infant feeding inst. of milk sugar.—DOSE: Diab., 30–60 Gm. (1–2 oz.) p.d.; in severe cases only 12–24 Gm. (3–6 dr.) p.d. In tuberc., 4–6 tablesp. p.d.

do. Merck—Syrupy

Yellowish syrup.—USES: Microsc., & preserv. medium f. fat & fat impregnations.

Levurargyre

Mercury-nucleoproteid obt'd by grad. habituat-

ing beer-yeast to act'n of HgCl_2 .—USES: Syph.—DOSE. 2 cc. (30 M) of 1% solut.

Liatris

Deer's Tongue; Vanilla Plant.—Lvs of *Liatris* (*Trilisa*) odoratissima, Willd., Compositæ.—HABIT.: U. S. (Virginia to Florida & Louisiana).—CONSTIT.: Volat. oil; cumarin.—ACTION: Stim.; Tonic.—USES: Nervous affect., & said to be of benefit in whoop-cough.—Techn., perfumery, & perfuming tobacco (smoking, chewing, & snuff).—DOSE: 1–4 Gm. (15–60 grn.).—Fl'dextr., 1–4 cc. (15–60 M).

LICAREOL—see *Linaol*

Lichenin

Moss Starch.— $(\text{C}_{12}\text{H}_{20}\text{O}_{10})_n$.—Carbohydrate fr. *Cetraria islandica*, *Acharius* (Iceland Moss).—Wh. powd.—SOL.: Boil. W.; HCl.—ACTION: Demulcent.

LICORICE—see *Glycyrrhiza*

LIC(QU)ORICE, Indian, or Wild—see *Abrus*

Lieben's Solution—Test for Acetone

6 Gm. KI, 4 Gm. I, & W. to make 100 cc.—For testing, add some of the solut. to the suspected liq. (urine) followed by a few drops solut. KOH—if acetone present iodoform will be formed (recognized by odor); 0.01 Mgm. detected in 2–3 minutes.

Lievrite—Mineral

Ilvaite; Yenite or Jenite.—OCCUR.: Herborn-seebach, Nassau; Elba; Tyrol; Norway; U. S.—COMPOS.: $(\text{SiO}_4)_2(\text{FeOH})\text{Fe}_2\text{Ca}$.—CRYST. SYST.: Rhomb.—LUSTER: Submet.—COLOR: Iron black or dark grayish-black.—STREAK: Black, inclining to green or brown.—CLEAV.: Rather indistinct.—HARDN.: 5.5–6.—SP. GR.: 3.99–4.05.

LIFE ROOT—see *Senecio*

LIGHT GREEN—see *Methyl Green*

Light-Green S.F. Yellowish

Di-Sodium salt of diethyldibenzylidiamino-triphenylcarbinol-trisulphonic acid ($\text{C}_{37}\text{H}_{36}\text{O}_{10}\text{N}_2\text{S}_3\text{Na}_2$).—Bright-green, dull powd.—SOL.: W., A.—USES: Permitted food color when “certified”; techn., dyeing silk & wool green.

LIGNITE WAX—see *Montan Wax*

LIGNUM VITÆ—see *Guaiaac Wood*

LIGROIN, LIGHT—see *Canadol*

LIGUSTICUM—see *Lovage*

LIGUSTRIN, or LILACIN—see *Syringin*

“LILACINE”—see *Terpineol*

LILY-OF-THE-VALLEY—see *Convallaria Flowers*

LIMA WOOD—see *Pernambuco*

LIME, or BURNT LIME—see *Calcium Oxide*

Lime Chlorinated—U.S.P. X; B.P.

Bleaching Powder; improperly “Chloride of Lime”; “Calcium Hypochlorite.”—Compos. variable: $\text{Ca}(\text{ClO})_2 + \text{CaCl}_2 + 2\text{H}_2\text{O}$, or $\text{CaCl}(\text{ClO}) + \text{H}_2\text{O}$ (?).—Fr. act'n of Cl on Ca-

(OH)₂; not less than 30% available Cl, U.S.P., B.P.—Wh. or grayish-wh. powd.; strong odor of hypochlorous acid; unpleas., saline taste; becomes moist on expos. to air, & decomp.—**SOL.**: Part. in W. or A.—**ACTION**: Bleach.; Disinf.—**USES**: Gen'l disinf.—*Extern.*, in eye-washes & gargles (1:25), compresses (7.5–15:500), & in 1:10–20 paraffin oint. in frost-bites, & 1:1000 solut. as inject. in gonorr.; prepar. the Carrel-Dakin antisept. solut. Subcut. in snake bite, 10–12 cc. (2½–3 fl. dr.) of 1:120 solut. = 0.1–0.12 Gm. (1½–2 grn.).—*Techn.*, bleach. agent (wood pulp, linen, cotton, straw, etc., & in laundering); oxidizer in calico printing to obt. white designs on a colored ground; removing fusel oil fr. A.; manuf. iodoform; destroy'g caterpillars; disinf. drinking W. (w. unfiltered W., 0.6:1,000,000 gives good results, but w. W. passed through a Jewell filter 0.2:1,000,000 suffice); bleach'g oils, & hard & soft soaps; disinf. sewage, sputum, etc.—**ANTID.**: NH₃ vapors, ether, steam.—**CAUT.**: Keep dry, fr. air.

LIME HYDROXIDE, SOLUTION—see Calcium Hydroxide Solution

LIME, LIVER OF—see Calcium Sulphide, Crude

LIME, QUICK—see Calcium Oxide

LIME, SACCHARATED—see "Calcium Saccharate"

LIME, SLAKED—see Calcium Hydroxide

LIME, SULPHURATED—see Calcium Sulphide, Crude

LIME, SULPHURATED, SOLUT.—see Calcium Sulphide, Crude, Solution

LIME-WATER—see Calcium Hydroxide Solution

LIMONENE, INACTIVE—see Dipentene

Limonite—Mineral

OCCUR.: Hornhausen, Germany.—**COMPOS.**: Fe₂O₃(OH)₆.—**LUSTER**: Submet., varnish-like, silky dull.—**COLOR**: Brown, yellow, nearly black.—**STREAK**: Yellowish-brown.—**HARDN.**: 5–5.5.—**SP. GR.**: 3.6–4.0.—**USES**: Important iron ore.

Linaoöl

Licareol.—C₁₀H₁₇OH = 154.19.—Chief const. of linaloe oil.—**COLOR**. liq.—**SOL.**: Eas. in 40% A.; v. eas. absol. A.—**SP. GR.**: 0.873 at 15° C.—**BOIL.**: 195°–199° C.—**Odor** like that of oil bergamot & of French oil lavender, hence linaoöl sometimes used inst. of these oils; also in perfumery (in Extr. de Muguet).

LINDEN—see Tilia

LINGWORT—see Helebores, White

LINN TREE—see Tilia

Linseed—U.S.P. X; B.P.

Flaxseed; Linum.—Dried ripe seeds of *Linum usitatissimum*, L. Linacæ.—**HABIT.**: Cultiv. everywhere.—**CONSTIT.**: Fixed oil (30%–40%), mucilage (6%), proteids (abt 25%) & linamarin (B.P.C.).—**ACTION**: Purgat.; in ground form in cataplasms & enemas; Antidiabetic.—**USES**:

As "tea" in coughs, colds, etc.; also diab.—*Techn.*, as source of linseed oil (*q.v.*).—**DOSE**: 15 Gm. (4 dr.) boiled w. 1 liter (abt 1 quart) W. to make ½ liter (abt 1 pint), the decoct. to be taken during 1 day, in diabetes.

LINUM—see Linseed

LION'S TOOTH—see Taraxacum

Lipiodol

A 40% solut. of I in oil poppy.—**USES**: In Roentgen ray diagnosis of spinal tumors.

Lipoiodine

Diiodobradic Acid Ethylester.—C₈H₁₇·CHI.CHI.C₁₁H₂₂.COOC₂H₅ = 620.33.—**COLOR**. cryst., cont. abt 41% I.—**SOL.**: A.; v. eas. C., E., fats, & oils; insol. W.—**USES**: Inst. of iodides.—**DOSE**: 0.3–1.6 Gm. (5–25 grn.).

Lipp's Solution—Test for Dextrin

Satur., aqu. solut. lead subacetate; affords a wh. ppt. on boil. w. dextrin.

Lippia

Fog-fruit.—Whole plant *Lippia dulcis* var. *Mexicana*, Trevir., Verbenacæ.—**HABIT.**: Mexico.—**CONSTIT.**: Lippiol; volat. camphor; volat. oil.—**ACTION**: Expectant.—**USES**: Coughs, colds & affections of respir. organs.—**DOSE**: 2–4 Gm. (30–60 grn.) in form of fl'dextr.—**Tr.**, 4 cc. (60 M).

LIQUID PARAFFIN—see Petrolatum, Liquid

LIQUOR AMMONIÆ—see Water Ammonia

LIQUOR CALCIS—see Calcium Hydroxide, Solution

LIQUOR CARBONIS DETERGENS—see Solution Coal Tar

LIQUOR DISINFECTANS—see Solution Cresol, Saponated

LIQUOR PICIS CARBONIS—see Solution Coal Tar

LIQUOR SERIPARUS—see Solution, Rennet

LIQUORICE—see Glycyrrhiza

Liriodendron

Tulip-tree; Yellow Wood.—Bark of *Liriodendron tulipifera*, L., Magnoliacæ.—**HABIT.**: Eastern U. S., west to Wisconsin; China.—**CONSTIT.**: Liriodendrin (?); tulipiferine; glucoside; bitter extractive; volat. oil; resin.—**ACTION**: Alter.; Antiper.—**USES**: Dyspep., rheumat., ague.—**DOSE**: Fl'dextr., 2–4 cc. (30–60 M).

LITHARGE—see Lead Oxide, Yellow

Lithium Merck

Li = 6.94; first found in petalite (a silicate) by Arfvedson in 1818.—Silvery wh. metal when freshly cut; somewh. harder than sodium.—Lightest of the solid elements.—**SP. GR.**: 0.59.—**MELT.**: Abt 186° C.—**BOIL.**: Above 1400° C.—**USES**: Manuf. lithium salts (some of these are used medic. in arthritis, lithiasis, & chron. rheumatism).—**CAUT.**: Keep under benzine, naphtha or o. liquid free fr. oxygen, or water.

Lithium Acetate Merck

$\text{LiC}_2\text{H}_3\text{O}_2 + 2\text{H}_2\text{O} = 102.01$.—Colorl. cryst. powd.—**SOL.**: Eas. W.—**ACTION**: Diuret.; Antipodagric.—**USES**: Gout, gravel, renal calculi.—**DOSE**: 0.5–1.6 Gm. (8–25 grn.).

Lithium Acetylsalicylate—B.P.C.

Hydropyrin; Litmopyrine; Tyllithin.— $\text{LiC}_9\text{H}_7\text{O}_4 = 186.04$.—Fr. acetylsalicylic acid & Li_2CO_3 .—Sltly hygrosc. powd.; decomp. in moist air; cont's 3.76% Li.—**SOL.**: 1 W., 4 A.—**ACTION & USES**: As of acetylsalicylic acid.—**DOSE**: 0.3–1 Gm. (5–15 grn.).—**INCOMPAT.**: Alkali carbonates; iron & quinine salts; mineral acids.

Lithium Arsenate

$\text{Li}_3\text{AsO}_4 + \text{H}_2\text{O} = 177.80$.—Wh. powd.—Alm. insol. W.—**ACTION**: Antilith.; Alter.—**USES**: Gout, malar. affect., skin dis., & anemia.—**DOSE**: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.).—**ANTID.**: Emetics, stomach siphon, hot milk, eggs, magnesia, sacchar. iron oxide, dialyzed iron, or fresh iron sesquioxide.—**CAUT.**: Poison!

Lithium Benzoate Merck—N.F. V

$\text{LiC}_7\text{H}_5\text{O}_2 = 128.02$.—Wh., cryst. powd.—**SOL.**: 3 W., 16 A., at 25° C.; 2.5 boil. W., 10 boil. A. Solub. incr. by presence of sod. benzoate, but not if A. is the solvent.—**ACTION**: Antilith.; Diuret.; Antirheum.—**USES**: Intern., uric acid diathesis.—**Extern.**, in 2.5%–10% solut. f. remov'g calcareous spots in ulcerous corneal diseases.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.) sev'l t.p.d.

Lithium Benzosalicylate

Mixt. lithium benzoate & lithium salicylate in molec. proport.—Wh., cryst. powd.—**SOL.**: Eas. W., A.—**Properties** of lithium benzoate & salicylic acid.

LITHIUM BIBORATE—see Lithium Borate

LITHIUM BICHROMATE—see Lithium Dichromate

Lithium Bitartrate Merck

Tartarolithine.— $\text{LiC}_4\text{H}_5\text{O}_6 + \text{H}_2\text{O} = 174.02$.—Wh. cryst. powd.—**SOL.**: W.—**USES**: Gouty & suppurative gingivitis; also in pyorrhea alveolaris.—**DOSE**: 0.3 Gm. (5 grn.) 3 t.p.d.

LITHIUM BIURATE—see Lithium Urate

Lithium Borate

Lithium Bi- (or Tetra-) borate.—Wh., cryst. powd.—**SOL.**: Sltly W.

Lithium Borocitrate

Lithium borate w. lithium citrate.—Wh. powd.—**SOL.**: W.—**ACTION**: Antarthritic.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.) 3 t.p.d.

Lithium Bromide Merck—N.F.V.

$\text{LiBr} = 86.86$.—Wh., v. deliq., sltly bitter gran. powd.—**SOL.**: 0.6 W. at 25° C., 0.4 boil. W., freely in A., & sol. E.—**ACTION**: Sed.; Antilith.; Diur.—**USES**: Espec. in epilepsy & headache; also acute & chron. parenchymatous nephritis, & gout.—**Techn.**, in photography.—**DOSE**: 0.25–1 Gm. (4–15 grn.); aver. dose 1

Gm. (15 grn.); in neuroses, hyster., & insomn., 0.2 Gm. (3 grn.); in epilepsy. 0.5 Gm. (8 grn.) grad. incr. up to 2.5–3 Gm. (38–45 grn.)—**INCOMP.**: Strong mineral acids, alkaloids, & salts of Cu, Pb, Hg, & Ag.—**CAUT.**: Keep well stoppered.

Lithium Cacodylate

$\text{Li}(\text{CH}_3)_2\text{AsO}_2 = 143.96$.—Wh. powd.—**SOL.**: W.—**USES**: As of cacodylates generally.—**DOSE**: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).

LITHIUM CARBOLATE—see Lithium Phenate

Lithium Carbonate Merck—C.P.

Normal Lithium Carbonate.— $\text{Li}_2\text{CO}_3 = 73.89$.—Light. wh., alkal. powd.—**SOL.**: Abt 80 cold, more eas. boil., w.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.150%
Calcium (Ca).....	0.050%
Other Alkalies.....	0.5%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

do. Merck—N.F. V

DESCRIPT. ETC.: As preced'g.—**SOL.**: 78 W. at 25° C., 140 boil. W., dil. acids, & alm. insol. A., N.F.; 80 W.; insol. A.—**ACTION**: Antilith.; Diuret.; Antirheum.—**USES**: Lithiasis, epilepsy, herpetic dis., rheum., gout, & arthritis; also in manuf. mineral waters.—**DOSE**: 0.12–1 Gm. (2–15 grn.) in sodawater or lemonade; aver. dose 0.5 Gm. (8 grn.); in gravel as solvent, inject. of 1 Gm. (15 grn.) in aqu. solut.

Lithium Chloride Merck—C.P.

$\text{LiCl} = 42.40$.—White, deliq. cryst., granules, or cryst. powd.; sharp, saline taste.—**SOL.**: v. eas. W., A., E., acetone, amyl alcohol, & A. + E.

MAXIMUM OF IMPURITIES

Sulphate (SO_3).....	0.030%
Barium (Ba).....	0.000%
Calcium (Ca).....	0.040%
Other Alkalies.....	0.50%
Iron (Fe).....	0.003%
Other Heavy Metals.....	0.000%

do. Merck

DESCRIPT. & SOL.: As of the preceding.—**USES**: As of the carbonate; also pyrotechn., soldering Al, & in manuf. mineral waters.—**DOSE**: 0.3–0.8 Gm. (5–13 grn.), sev'l t.p.d.

Lithium Chromate

$\text{Li}_2\text{CrO}_4 + 2\text{H}_2\text{O} = 165.91$.—Yellow, deliq., cryst. powd.—**SOL.**: Eas. W.

Lithium Citrate Merck—N.F.V.—Gran. or Powd.

$\text{C}_3\text{H}_4\text{O}_7 \cdot (\text{COOLi})_3 \cdot 4\text{H}_2\text{O} = 281.95$.—Transp., colorl. gran. or cryst. powd.; feebly alkal. taste; deliq. on expos. to moist air.—**SOL.**: Abt 1.4 W. at 25° C., & v. sltly in A., N.F.—**ACTION**: Diuret. & Antarthrit.—**USES**: Gout, rheum., etc. More agre. than o. lithium salts, & less irrit. to stomach; also in mineral waters.—

Dose: 0.2–0.6 Gm. (3–10 grn.); 3–4 t.p.d.; aver. dose 0.5 Gm. (8 grn.).—CAUT.: Keep in air-tight containers.

do. Effervescent—B.P.

Mixt. lithium citrate (5%), NaHCO_3 , & tartaric & citric acids.—Dose: Average, 8 Gm. (2 dr.).

Lithium Dichromate

Lithium Bichromate.— $\text{Li}_2\text{Cr}_2\text{O}_7$ = 229.88.—Yellowish-red, hygrosc., cryst. powd.—Sol.: v. eas. W.—CAUT.: Keep well stoppered.

Lithium Fluoride

LiF = 25.94.—Colorl. cryst. tablets.—Sol.: HF; sltly W.—Uses: Manuf. enamels.

Lithium Formate

$\text{LiCHO}_2 + \text{H}_2\text{O}$ = 69.97.—Colorl. cryst.—Sol.: Eas. W., B.P.C.—Action: Antipodagr.; Diur.—Uses: Gout.—Dose: 0.06–0.3 Gm. (1–5 grn.), or 15 cc. (4 fl. dr.) of 1% aqu. solut. ev. 2–3 hrs; as *diur.*, 1–1.5 Gm. (15–23 grn.) p. day.

Lithium Glycerophosphate

$\text{C}_3\text{H}_7\text{O}_3\text{PO}(\text{OLi})_2$ = 183.99.—Wh., cryst. powd.—Sol.: 3 W.; insol. A.—Uses: Gout, accomp. by nervous debility.—Dose: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.

Lithium Hippurate Merck

$\text{C}_6\text{H}_5\text{CO.NH.CH}_2\text{COOLi}$ = 185.06.—Wh. cryst. powd.—Sol.: 2.5 W.—Uses: Uric-acid diathesis, gout, & rheumat.—Dose: 0.3–1 Gm. (5–15 grn.).

LITHIUM HYDRATE—see Lithium Hydroxide

Lithium Hydroxide Merck

Lithium Hydrate.— LiOH = 23.95.—Fr. Li_2SO_4 & $\text{Ba}(\text{OH})_2$.—Wh., caustic powd.; acrid, alkal. taste; absorbs CO_2 fr. air.—Sol.: W.; sltly A.—Uses: Prepar. o. Li comp'ds.—CAUT.: Keep well stopp'd.

Lithium Iodate

LiIO_3 = 181.86 + aq.—Wh. powd.—Sol.: 1.25 W.—Uses: Uric-acid diathesis, renal colic, & gout.—Dose: in *gout*, 0.15–0.2 Gm. ($2\frac{1}{2}$ –3 grn.) 3 t.p.d.; in *uric acid, diath.* & *renal colic*, 0.1 Gm. ($1\frac{1}{2}$ grn.) *subcut.*

Lithium Iodide Merck

$\text{LiI} + 3\text{H}_2\text{O}$ = 187.91.—Wh., deliq. granules or fused masses; yellow on expos. to air (I liber'd).—Sol.: Abt 0.5 W., eas. A., acetone.—Action: Antirheum.; Antilith.; Alter.—Uses: Chronic sciatic, gout, uric acid diathesis, & artic. rheum.—*Techn.*, to some extent in photog.—Dose: 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.

LITHIUM ISOVALERIANATE—see Lithium Valerate

Lithium Lactate Merck

$\text{LiC}_3\text{H}_5\text{O}_3$ = 96.00.—Wh., cryst. powd.—Sol.: W.—Uses: As of the carbonate.

Lithium Metaborate

LiBO_2 = 49.84.—Wh. powd.—Sol.: Sltly W.

LITHIUM METAVANADATE—see Lithium *m*-Vanadate

LITHIUM MICA—see Lepidolite

Lithium Nitrate Merck—C.P.

LiNO_3 = 68.95.—Colorl., deliq. granules.—Sol.: v. eas. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO_3).....	0.020%
Barium (Ba).....	0.000%
Calcium (Ca).....	0.030%
Other Alkalies.....	Abt 0.5%
Iron (Fe).....	0.003%
Other Heavy Metals.....	0.000%

CAUT.: Keep in well stopp'd bot.

do. Merck

Uses: Fireworks (red flames).

LITHIUM ORTHOPHOSPHATE—see Lithium Phosphate

Lithium Oxalate

$\text{Li}_2\text{C}_2\text{O}_4$ = 101.89.—Colorl. cryst.—Sol.: 8 W.—Uses: As of sod. citrate to prevent blood coagulation.

Lithium Phenate

Lithium Carbolate, Phenolate, or Phenylate; Phenol-lithium.—Wh. or reddish powd.—Sol.: Eas. W.—Action: Antisept.; Antilith.

LITHIUM PHENOLATE, or PHENYLATE—see Lithium Phenate

Lithium Phenolsulphonate

Lithium Sulphocarbolate, or Sulphophenylate.— $\text{C}_6\text{H}_4\text{OH.SO}_3\text{Li} + \text{H}_2\text{O}$ = 198.09.—Wh. cryst. powd.—Sol.: Eas. W.—Uses: *Intern.*, uric-acid diathesis.—*Extern.*, as inject. in gonorr.

Lithium Phosphate

Lithium Orthophosphate.— $2\text{Li}_3\text{PO}_4 + \text{H}_2\text{O}$ = 249.74.—Wh., cryst. powd.—Sol.: Acids; alm. insol. W.—Dose: 0.6–2 Gm. (10–30 grn.) p.d.

LITHIUM PLATINICHLORIDE—see Platinum & Lithium Chloride

LITHIUM PLATINOCYANIDE—see Platinum & Lithium Cyanide

LITHIUM RHODANIDE—see Lithium Sulphocyanate

Lithium Salicylate Merck—N.F.V

$\text{LiC}_7\text{H}_5\text{O}_3$ = 144.02.—Wh. or grayish-wh., odorl., sweetish powd.; deliq. in moist air.—Sol.: 0.75 W., 2 A.—Uses: Gout & artic. rheum. inst. of sod. salicylate; stated to be less irritat. to stomach than salicylic acid.—Dose: 0.6–2 Gm. (10–30 grn.); aver. dose 1 Gm. (15 grn.).—Max. D.: Per day, 5 Gm. (75 grn.).—CAUT.: Keep in well stoppered bot.

LITHIUM SOZOIODOLATE—see Sozoiodole-Lithium

Lithium Succinate

$\text{Li}_2\text{C}_4\text{H}_4\text{O}_4 + 3\text{H}_2\text{O}$ = 183.98.—Colorl. cryst.—Sol.: W.

Lithium Sulphate Merck—C.P.

$\text{Li}_2\text{SO}_4 + \text{H}_2\text{O} = 127.96$.—Colorl. cryst.—SOL.: W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (NO_3).....	0.003%
Calcium (Ca).....	0.040%
Other Alkalies.....	Abt 0.5%
Iron (Fe).....	0.003%
Other Heavy Metals.....	0.000%

USES: *Medic.* As cath. & antarthrit., in lithiasis, partic. when complicated w. constip. & torpid liver or gravel.—DOSE: 0.6–2 Gm. (10–30 grn.).

LITHIUM SULPHOCARBOLATE—see Lithium Phenolsulphonate

Lithium Sulphocyanate

Lithium Sulphocyanide or Rhodanide.—LiSCN = 65.01.—Deliq., wh. cryst.—SOL.: v. eas. W.—CAUT.: Keep in well-stoppered bot.

LITHIUM SULPHOCYANIDE—see Lithium Sulphocyanate

LITHIUM "SULPHOICHTHYOLATE"—see Sulphoichthyolate (Lithium)

LITHIUM SULPHOPHENYLATE—see Lithium Phenolsulphonate

Lithium Tartrate

$\text{Li}_2\text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O} = 179.95$.—Wh. cryst. powd.—SOL.: W.

LITHIUM TETRABORATE—see Lithium Borate

Lithium Urate

Lithium Biurate; Acid Lithium Urate.— $\text{LiC}_5\text{H}_3\text{N}_4\text{O}_3 = 174.02$.—Wh. powd.—SOL.: 370 cold, 39 boil., W.; sltly A., B.P.C.—ACTION: Antarthrit.—DOSE: 0.5–2 Gm. (8–30 grn.).

LITHIUM URATE, ACID—see Lithium Urate

Lithium Valerate

Lithium Isovalerianate.— $\text{LiC}_5\text{H}_9\text{O}_2 = 108.04$.—Wh. cryst. powd.; valerian odor.—SOL.: W.—ACTION: Antispasm.; Antilith.—USES: Lithiasis or rheum. complicated w. hysteria or nervousness.—DOSE: 0.3–1 Gm. (5–15 grn.).

Lithium m-Vanadate

Lithium Metavanadate.— $\text{LiVO}_3 + 2\text{H}_2\text{O} = 141.97$.—Yellowish powd.—SOL.: W.—ACTION: Antispasm.; Antiarthrit.—USES: Gout.—DOSE: 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.) p.d., repeated ev. 2nd or 3rd day.

Lithium & Potassium Tartrate

$\text{LiKC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O} = 212.11$.—Wh., cryst. powd.—SOL.: W.—ACTION: Antilith.; Lax.; Diur.—USES: Lithiasis & rheum., w. chronic constip.—DOSE: 2–4 Gm. (30–60 grn.).

Lithium & Sodium Salicylate

Mixt. lithium & sodium salicylates in molecular proport.—Wh. powd.—SOL.: Eas. W.—ACTION: Antirheum.; Antilithic; Diur.—USES: Lithiasis, rheum., gout, &c.—DOSE: 0.6–2 Gm. (10–30 grn.) p.d.

LITMOPYRINE—see Lithium Acetylsalicylate

Litmus Merck—Purified

Lacmus; Turnsole; Lacca Musica; Lacca Cœrulea.—Blue color. matter fr. var. spec. Lichens (partic. Variolaria, Lecanora, & Rocella), Parmeliaceae.—HABIT.: Scandinavia & shores of Mediterranean, Azores, Canaries, Cape Verde Islands, California, East India, Mozambique, & Madagascar. Manuf. alm. exclusively in Holland.—SOL.: Partly in W., A.—CONSTIT.: Chiefly azolitmin & erythrolitmin comb'd w. alkalies; spaniolitmin; lecanoric acid; orcin; erythrolein.—USES: As indicator in volum. analysis (alkalies = blue; acids = red); in microsc. f. coloring culture media f. diagnostic purposes; also coloring foods, etc.

do. Merck—Cubes, or Powd.

Blue cubes or irreg. pieces, or powd.—SOL.: Partly in W., A.—USES: Color f. foods; dye; also indicator in volumetric analysis.

Litmus Paper Merck—Blue

Unsize wh. paper, charged w. blue litmus.—USES: Very sensitive indicator & test f. acids (red color).—Keep in well-stoppered bottles.

do. Merck—Neutral

Unsize wh. paper charged w. neutral litmus.—USES: Exceedingly sensitive indicator f. acids & alkalies (alkalies = blue; acids = red).—Keep in well-closed bottles; prone to spoil.

do. Merck—Red

Unsize wh. paper, charged w. red litmus.—USES: Indicator f. alkalies (blue color).—Keep in well-stoppered bottles.

Liver—Dried, Powd.

Fr. the fresh livers (deprived of blood) of cattle; 1 part = abt 5 parts fresh organ.—USES: Atrophic hepatic cirrhosis, diab., anem., various hemorrhages, & hemeralopia.—DOSE: Up to 20 Gm. (5 dr.) p.d.

Liver Extract No. 343

A W.-sol. nitrogenous nonprotein fraction obt. fr. fresh mammalian liver; 1 part = 25–33 parts fresh liver.—Yellow powd.—SOL.: Alm. entirely in W.—USES: Pernicious anemia.—DOSE: 3–4 Gm. (45–60 grn.) up to 6–8 t.p.d.

LIVER OF ANTIMONY—see Potassium & Antimony Sulphurated

LIVER OF LIME—see Calcium Sulphide, Crude

LIVER OF SULPHUR—see Potassa, Sulphurated

LIVER OF SULPHUR, CALCIC—see Calcium Sulphide, Crude

LIVERLEAF, or LIVERWORT—see Hepatica

Lobelia—U.S.P. X; B.P.

Indian or Wild Tobacco; Emetic Herb; Asthma Weed; Bladder Pod; Vomit Wort.—Dried lvs & tops (flowering herb, B.P.) of *Lobelia inflata*, L., Lobeliaceae. (The seeds also are used, though not official in the B.P. or U.S.P.).—HABIT.: Canada; U. S.—CONSTIT.: *Lvs.* & *Tops*: Lobeline; lobelidine; lobelacrin; inflatin;

lobelic acid; volat. oil; resin; wax; gum.—*Seeds*: Fixed oil; lobeline.—*ACTION*: *Lvs*: Antispasmodic.; Emetic; Expector.; Nervine; Purgat.; Narcot.; Diuret.; Diaphor.—*Seeds*: Expector.; Emetic; Antiasthmatic.—*USES*: *Lvs* & *Seeds*, in spasm. asthma, whoop-cough, croup, pneum., & colds.—*DOSE*: *Lvs*: 0.12–0.6 Gm. (2–10 grn.) as *expector.*; aver. dose 0.1 Gm. ($\frac{1}{2}$ grn.); 0.6–1.3 Gm. (10–20 grn.) *emet.*—*Alcoh. extr.*, 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.)—*Fl'dextr.*, 0.12–0.6 cc. (2–10 M).—*Tr.* (1:10) 0.5–1 cc. (8–15 M) *expector.*, & 2–4 cc. (30–60 M) *emetic.*—*Ethereal Tr.* (1:5), 0.3–1 cc. (5–15 M).—*Seed*: *Fl'dextr.*, 0.12–0.6 cc. (2–10 M).—*ANTID.*: Emetics; tannin; stimulants, strychnine (hypoderm.); opiates; picrotoxin; digitalis; atropine; artificial heat; brandy; friction; mustard baths.

Lobeline

$C_{18}H_{23}NO_2 = 285.28$.—Alkaloid fr. seeds or lvs of *Lobelia inflata*, L.—Yellow syrupy liq.—*SOL.*: W.; more eas. in A., C., E.—*ACTION*: Sed.; Antispasmodic.—*USES*: Salts best for medical use (see the sulphate, below).—*ANTID.*: Aid emesis by large draughts warm W. Give tannin, brandy, morphine, &c. Use mustard & friction.—*CAUT.*: Poison. *Not* the eclectic "Lobelin."

LOBELINE, ALPHA—see Alpha-Lobeline

Lobeline Sulphate

Salt of total alkaloids of *Lobelia inflata* L.—Yellowish hygrosc. lumps.—*SOL.*: W., A.—*ACTION*: Sedat.; Antispasmodic.—*USES*: Chiefly in asthma & bronch., dyspnea, chorea, whoop-cough, gout, epilepsy, & spasm. neuroses.—*DOSE*: *Spasm. asthma*, 0.06 Gm. (1 grn.) p.d., grad. incr. to 0.2–0.36 Gm. (3–6 grn.) p.d.; f. children, 0.01–0.05 Gm. ($\frac{1}{16}$ – $\frac{3}{4}$ grn.) p.d.—*INCOMP.*: As of alkaloids in general.—*ANTID.*: Stomach siphon, emetics & tannin. Stimulate later w. brandy, spirit of ammonia, &c. Give morphine.—*CAUT.*: Keep in well-stoppered bot.

Lodal

6,7-Dimethoxy-2-methyl-3,4-dihydroisoquinoline Chloride.—A papaverine derivative, obt'd as an intermediate product in manuf. epinine (*q.v.*).—Yellow cryst.—*SOL.*: Slowly in W., A.—*ACTION*: Uterine contractor.—*USES*: Uterine hemorrhage & pain.—*DOSE*: 0.06 Gm. (1 grn.).

LODESTONE—see Magnetite

Löffler's Ferrous-Tannate Mordant

Solut. 20 Gm. tannin in 80 Gm. W., w. add'n of 50 cc. cold satur. aqu. solut. $FeSO_4$ & 10 Gm. conc. alcoh. solut. fuchsine.—*USES*: As mordant & stain f. flagella.

do. Methylene-Blue Solution—For Tubercle Bacilli

(1) Mixt. 30 vol. conc. alcoh. solut. methylene blue w. 100 vol. KOH solut. (1:10000).—(2) 0.5 Grn. methylene blue, 30 cc. A., 2 cc. 0.1*N* KOH, 98 cc. W. (U.S.P. IX).

LOGWOOD—see Hematoxylin

LOJA BARK—see Cinchona, Pale

LONGWORT—see Pyrethrum

Lophophorine Hydrochloride

$C_{13}H_{17}NO_3.HCl = 271.68$.—Salt of alkaloid fr. *Anhalonium Lewinii*, a Mexican Cactaceæ.—Wh., cryst. powd.—*SOL.*: W.—*ACTION*: Tetanizing; increases reflex excitability, raises the blood pressure, & causes visual hallucinations.—*DOSE*: 0.05 Gm. ($\frac{3}{4}$ grn.) has been given, but doses have not yet been definitely fixed.—See also Anhalonine.

Lovage

Sea Parsley; Ligusticum.—Whole plant *Levisticum officinale*, Koch (*Ligusticum Levisticum*, L.), Umbelliferae.—Habit.: Southern Europe.—*CONSTIT.*: Volat. oil; resin; bitter principle; angelic acid.—*USES*: *Herb*: Arterial & nervous stimulant.—*Root*: Diuret. in dropsy; also used in fetid breath, & amenor.—*Seeds*: Tonic.—*DOSE*: *Root*: *Fl'dextr.*, 1–4 cc. (15–60 M).—*Alcoh. extr.*, 0.5–1.5 Gm. (8–23 grn.).

Löwe's Solution—Test for Glucose (Dextrose)

Solut. 16 Gm. $CuSO_4$ in 64 cc. W., & add. 80 cc. solut. NaOH (sp. gr. 1.34) w. 6–8 Gm. G.—Reduced by glucose (dextrose) on heat'g.—Also used f. quantitative determ.

LOXA BARK—see Cinchona, Pale

LUGOL'S SOLUTION—see Solution Iodine Compound

Lugol's Test Solution—Test for Albumin

(1) Mixt. glacial acetic acid & W.; or (2) Aqu. solut. I in solut. KI, acidul. w. acetic acid.—Ppts albumin fr. its soluts.

Luminal

Phenobarbital U.S.P. X; Phenylethylbarbituric Acid; Phenylethylmalonylurea.— $(C_6H_5)(C_2H_5):C:(CONH)_2:CO = 232.17$.—Wh., odorl., sltly bitter cryst. powd.—*SOL.*: Abt 1000 W., 8 A., 40 C., 13 E., 700 B., at 25° C., & alkalies, U.S.P.—*MELT.*: 173°–174° C.—*ACTION*: Hypnot., & Sed., f. intern. & subcut. use.—*USES*: Insomnia & conditions of excitement of the nervous system, wakefulness of mania, delirium tremens, dementia praecox, hysteria, manic-depressive insanity, epilepsy, arteriosclerosis, morphine withdrawal, & post-apoplectic conditions.—*DOSE*: 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.), incr. if necess.; aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.).—*MAX. D.*: 0.8 Gm. (12 grn.).—The doses should be much smaller f. women, weak men, & phthisical subjects.

Luminal-Sodium

Phenobartital-Sodium; Soluble Luminal.— $(C_6H_5)(C_2H_5):C:CONH.CONNa:CO = 254.16$.—Wh., cryst. hygrosc. powd.—*SOL.*: Eas. W.—*ACTION*: Hypnotic.—*USES* & *DOSES*: As of luminal, but partic. adapted f. subcut. & rectal use, because eas. soluble. Soluts (20%) may be sterilized, but do not keep long, hence should be used fresh.

LUMINAL, SOLUBLE—see Luminal-Sodium; Phenobarbital-Sodium

LUNAR CAUSTIC—see Silver Nitrate, Fused

Lunge's Solution—Test for Nitrous Acid

Diss. 0.1 Gm. alphanaphthylamine in 20 cc. boil. W., filter through washed absorb. cotton, & add 150 cc. dil. acetic acid (sp. gr. 1.04) & 0.5 Gm. sulphanilic acid dissolved in 150 cc. dil. acetic acid (sp. gr. 1.04).—Test solut. affords a pink color w. HNO_2 ; a red color indicates much HNO_2 or its salts.

LUNGWORT—see Pulmonaria

Lunosol

Colloidal Silver Chloride, Saccharated; 10% AgCl , 90% sucrose.—Wh., gran., odorl. powd.—**SOL.**: 0.5 W.—**ACTION**: Bactericide.—**USES**: Gonorrhea, pyelitis, ophthal. neonatorum, conjunctivitis, trachoma, & affect. of nose & throat; also in gynecol. & surgery.

d-Lupanine

$\text{C}_{15}\text{H}_{24}\text{N}_2\text{O}$ = 248.28.—Alkaloid fr. seeds of *Lupinus albus*, *Perennis*, & *L. angustifolius*.—Pale-yellow, honey-like liq.; unpleas. odor; intensely bitter taste; green fluoresc.—**SOL.**: W., A., C., E., ligroin.

LUPINIDINE—see Sparteine

LUPINIDINE BISULPHATE—see Lupinidine Sulphate

Lupinidine Sulphate

Lupinidine Bisulphate. — $\text{C}_{15}\text{H}_{26}\text{N}_2 \cdot 2\text{H}_2\text{SO}_4$ = 430.45.—Salt of an alkaloid fr. seed of *Lupinus luteus*, L.—Ident. w. sparteine bisulphate.—Small, colorl. cryst.—**SOL.**: W.; sltly A.

Lupinine

$\text{C}_{10}\text{H}_{19}\text{NO}$ = 169.21.—Alkaloid fr. seed of *Lupinus luteus*, L.—Colorl. cryst.—**SOL.**: W., A., C., & E.—**MELT.**: Abt 68° C.—**BOIL.**: 255°–257° C.—**ACTION**: Slty paralyzes the brain & medulla oblongata.

Lupulin—N.F. V; B.P.

Glandular trichomes separated fr. strobiles of *Humulus Lupulus*, L., Moraceae (Hops).—**HABIT.**: Europe; Asia; North America; cultivated widely.—**CONSTIT.**: Lupamaric acid; humulol; volat. oil (3%, B.P.C.); xanthohumol; resin; choline (lupuline); wax (myricin); tannin; asparagin.—Not less than 60% lupulin is sol. in E.—**ACTION**: Aphrodisiac; Stim.; Tonic; Anodyne.—**USES**: Genital erethism, satyriasis, chordee, &c.—**DOSE**: 0.12–1 Gm. (2–15 grn.); aver. dose 0.5 Gm. (8 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—**Oleores.**, 0.12–0.3 Gm. (2–5 grn.).

Lutein

Dried & powd. fully developed corpora lutea of the hog; 1 part = approx. 5 parts fresh subste.—**USES**: Obesity associated w. amenorrhea & o. conditions of ovarian insufficiency.—**DOSE**: 0.12–0.6 Gm. (2–10 grn.) 2–3 t.p.d.—Mktd in 2 grn. & 5 grn. tabl.

LUTEOCOBALTIC CHLORIDE—see Hexamminecobalt Chloride

Luteol

Oxychlorodiphenylquinoxaline.— $\text{C}_6\text{H}_2 \cdot \text{OH}_2 \cdot (\text{NC}) \cdot (\text{C}_6\text{H}_5)_2\text{Cl}$ = 307.68.—Yellowish, cryst. need.—**SOL.**: A., E., insol. W.—**MELT.**: 246° C.—**USES**: Indicator in 1:300 alcob. solut. f. alkalis (intense yellow color).

α -Lutidine

Dimethylpyridine.— $\text{C}_5\text{H}_3\text{N}(\text{CH}_3)_2$ = 107.12.—Fr. bituminous shale by dist'n.—Clear, colorl. liq.—**SOL.**: W.; eas. A. & E.—**BOIL.**: Abt 155° C.

β -Lutidine

Betaethylpyridine; 3-Ethylpyridine.— $\text{C}_5\text{H}_4(\text{C}_2\text{H}_5)\text{N}$ = 107.12.—Fr. cinchonine & KOH by dist'n.—Colorl. to brownish liq.—**SOL.**: A., E.—**SP. GR.**: 0.945 at 15° C.—**BOIL.**: 165° C.—**ACTION**: Narcot.; Antispasm.—**USES**: Has been recom. as antidote f. pois'g by strychnine, & in tetanic convulsions.—**ANTID.**: Emetics, stom. siphon, analeptics, strychnine.

Lycacoinitine

$\text{C}_{27}\text{H}_{34}\text{N}_2\text{O}_8 + \text{H}_2\text{O}$ = 500.44.—Alkaloid fr. root *Aconitum Lycocotum*, L.—Yellowish-wh. amorph. powd.; intens. bitter taste.—**SOL.**: A., C., E., CS_2 , petrol. E.—**MELT.**: Abt 111°–115° C.—**ANTID.**: Emetics, stimulants, & tannin.

Lycetol

Dimethylpiperazine Tartrate.— $\text{NH} \cdot ([\text{CH}]_2 \cdot [\text{CH}_2]_2 \cdot [\text{CH}_2]_2) \cdot \text{NH} \cdot \text{COOH} \cdot \text{CH}(\text{OH}) \cdot \text{CH}(\text{OH}) \cdot \text{COOH}$ = 264.23.—Wh., odorl. powd.—**SOL.**: W.—**MELT.**: 250° C.—**ACTION**: Analg.; Diur.; Uric Acid Solvent.—**USES**: Gout, rheum., lithiasis, &c.—**DOSE**: 1–2 Gm. (15–30 grn.).—**INCOMPAT.**: Alkalies.

LYCINE HYDROCHLORIDE—see Betaine Hydrochloride

Lycopin (Concentration)

Resin extr. fr. *Lycopus virginicus*, L. (Bugleweed).—Brownish powd.; peculiar odor; unpleas., slty bitter taste.—**SOL.**: A., E.—**ACTION**: Astring.; Narcot.—**USES**: Pulmonary & o. hemorrhages.—**DOSE**: 0.06–0.36 Gm. (1–6 grn.).

Lycopodium—U.S.P. X; B.P.C.

Club-Moss (plant); Lycopodium Seed (spores); Vegetable Sulphur.—Spores of *Lycopodium clavatum*, L., Lycopodiaceae; (& o. spec. of L., B.P.C.).—**HABIT.**: N. America; Europe; Asia.—**CONSTIT.**: Spores, fixed oil (abt 50%, B.P.C.); cane sugar.—**ACTION**: Rarely as an Emmen.; Cathart.; Diuret.—**USES**: *Intern.*, incont. of urine, & o. dis. of urinary organs.—*Extern.*, as appl. in plica; chiefly as an inert dust. powd. f. inflam. skin surfaces & to prevent chafing.—*Pharm.*, in dispensing as a covering f. pills, suppositories, etc.—*Techn.*, explosives, pyrotechnics, flashlight powders, & to produce artif. lightning.—**DOSE**: 1–4 Gm. (15–60 grn.) in "shake" mixture.—Tr. (1:10, B.P.C.), 1–4 cc. (15–60 M).

Lycopus

Bugleweed; Sweet Bugle; Water Bugle.—Whole plant *Lycopus virginicus*, L., Labiatae.—**HABIT.**: British America south to Florida & Missouri.—**CONSTIT.**: Volat. oil; resin; tannin; glucoside.—**ACTION**: Hemost.; Astring.; Tonic, Sedat.; Narc.—**USES**: Diar. & dysent.; tonic in convalescence.—**DOSE**: 0.3–4 Gm. (5–60 grn.).—**Extr.**, 0.3–0.6 Gm. (5–10 grn.).—**Fl'dextr.**, 0.6–4 cc. (10–60 M).

Lysidine

Methylglyoxalidine; Ethylene-ethenyldiamine.— $\text{NH}(\text{CH}_2)_2\text{N}:\text{C}:\text{CH}_3 = 85.11$.—**Fr.** ethylene-diamine hydrochloride & sod. acetate by dry dist'n.—**Colorl.** hygrosc. cryst.; mousy odor.—Marketed as 50% solut.—**SOL.**: W., A., C.; in-

sol. E.—**MELT.**: 105° – 106° C.—**ACTION**: Uric-Acid Solvent; Diuret.—**USES**: Uric-acid diathesis, gout, lithiasis.—**DOSE**: 1–5 Gm. (15–75 grn.); or 2–10 cc. (30–150 M) of the 50% solut. daily, in $\frac{1}{2}$ liter (abt 1 pint) cold, carbonated W.—**INCOMPAT.**: Acids; salts of metals; alkaloids.

Lysol

Mixt. of alkali comp'ds of various cresols w. fat- & resin- soaps, obt'd by boiling a mixt. of heavy tar oils (boil. at 200° C.), fat, & resins, w. alkalies.—Brown, oily liq.; tarry odor.—**Cont.** abt 50% of cresols.—**SOL.**: W., A., G.—**SP. GR.**: 1.042.—**ACTION**: Disinf.; Antisep.—**USES**: 2%–4% solut. disinf. hands & surg. instr.—**IN VETER. MED.** as 1%–2% solut. Also as destroyer of fungi & insects.

M**Mace**—N.F. IV; **Fr. Cod.**

Arillode of the seed of *Myristica fragrans*, Houtt., Myristicaceae.—**HABIT.**: Molucca Islands; cultiv. in tropics, India, Philippines, S. America, Ceylon, Sumatra, Java, &c.—**CONSTIT.**: Volat. oil (4%–15%); fixed oil; resin; sugar; mucilage; proteids.—**USES**: Stim.; Tonic; Carmin.; Spice; Flavor.—**DOSE**: 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.5 Gm. (8 grn.).

MACLEVIN—see Protopine

Maclurin

Morintannic, or Moritannic, Acid.— $\text{C}_{13}\text{H}_{10}\text{O}_6 + \text{H}_2\text{O} = 280.16$.—**Fr.** wood of *Morus tinctoria*, L. (*Maclura aurantiaca*, Nutt.) (Old Fustic).—Light-yellow, microcryst. powd.—**SOL.**: A., E.; hot W.—**MELT.**: 200° .—**USES**: Dyeing fabrics.

MACQUER'S SALT—see Potassium Arsenate

MACROTIN—see Cimicifugin

Magdala Red

Naphthalene Red; Naphthalene Rose; Sudan Red; Naphthalene Scarlet; Rose Naphthylamine.—Dark-brown powd.—**SOL.**: A., sltly in boil. W.—**USES**: Dyeing silk pink w. slt fluorescence.

MAGELL—see Mezereum

MAGENDIE'S SOLUTION—see Solution Morphine Hypodermic

MAGENTA—see Fuchsine, Dye

MAGISTERY OF BISMUTH—see Bismuth Subnitrate

MAGNESIA—see Magnesium Oxide

MAGNESIA, CALCINED, or LIGHT, or USTA—see Magnesium Oxide, Light

MAGNESIA, FLUID—see Solut. Magnesium Bicarbonate

MAGNESIAGLIMMER—see Biotite

Magnesite—Mineral

OCCUR.: Styria; Tyrol; U. S. (Calif.); Canada, etc.—**COMPOS.**: MgCO_3 .—**CRYST. SYST.**: Hexag. rhombohed.—**LUSTER**: Earthy when mas-

sive; vitr. when cryst.—**COLOR**: Wh.; yellow or grayish when massive; brown to black when cryst.—**STREAK**: Wh.—**CLEAV.**: Perfect rhombohed.—**HARDN.**: 3.5–4.5.—**SP. GR.**: 3.0–3.12 (cryst.).—**USES**: Important source of Mg salts; manuf. CO_2 ; source of CO_2 f. analyt. purposes; manuf. refractory linings f. furnaces; filler; artif. brick & stone; refractory crucibles & retorts; heat insulators; wood pulp, ferro-magnesianite.

Magnesium

Mg = 24.32; first obtained in metal form by Davy in 1808.—**Lustr.**, silvery-wh., mall., moderately hard metal; burns w. brill., bluish-wh. light.—**SOL.**: Dil. acids; solut. NH_4Cl .—**SP. GR.**: 1.75.—**MELT.**: 651° C.—**BOIL.**: 1120° C.—**USES**: Inst. of zinc in Marsh's apparatus & o. chem. anal.; also in powd. form f. prepar. various comp'ds, &c.; inst. of zinc in galvanic batteries; in metallurgy f. prepar. Ni & Co f. rolling & milling & deoxidizing brass & bronze alloys; manuf. useful alloys; in Grignard's synthesis; as alloy w. Al in manuf. instruments & machine parts, optical mirrors, intermediates; pyrotechny; test'g f. N (Castellana) & saccharin (Tortelli).

do. Merck—Coarse, Fine, & Impalpable Powd.

USES: Pyrotechny; flash-light; aluminothermics; artif. lighting.

do. Merck—Ribbon

USES: Prod. intense light f. signals; also proposed f. treat'g angioma cavernosum.

do. Merck—Wire**Magnesium Acetate Merck**

$\text{Mg}(\text{C}_2\text{H}_3\text{O}_2)_2 + 4\text{H}_2\text{O} = 214.45$.—**Deliq.**, colorl. cryst.—**SOL.**: W., A.—**ACTION**: Cathartic.—**USES**: As of the citrate.—**Techn.**, dyeing & printing fabrics; disinfectant & deodorizer.—**DOSE**: 0.3–4 Gm. (5–60 grn.).—**CAUT.**: Keep well stoppered.

MAGNESIUM ACID CITRATE—see Citresia

Magnesium Benzoate Merck

$\text{Mg}(\text{C}_7\text{H}_5\text{O}_2)_2 + 3\text{H}_2\text{O} = 320.52$.—Wh., odorl. powd.—SOL.: 20 cold, freely in hot, W., A.—MELT.: Abt 200° C.—ACTION: Antilithic; Antisep.; Alter.—USES: Lithemia, rheum., scrof., cirrhosis of liver, gout, gravel, &c.—DOSE: 0.2–1.3 Gm. (3–20 grn.) sev'l t.p.d.

Magnesium Biphosphate Merck

Monobasic, or Acid, or Primary, Magnesium Phosphate; Magnesium Tetrahydrogen Phosphate; Monomagnesium, Phosphate.— $\text{MgH}_4\text{PO}_4)_2 = 218.43$.—Wh. powd.—SOL.: W.—ACTION: Laxative.—DOSE: 0.6–2 Gm. (10–30 grn.).

Magnesium Bisulphate Merck

Magnesium Hydrogen Sulphate; Acid Magnesium Sulphate.— $\text{MgH}_2(\text{SO}_4)_2 = 218.46$.—Wh. powd.—SOL.: W.—ACTION: Cath.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

Magnesium Borate

"Antifungin."—Wh. powd.—SOL.: Sltly W.—ACTION: Antisep.; Preservative.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

Magnesium Borocitrate Merck—Powd.

Wh. powder.—SOL.: Slowly in W.—ACTION: Antilithic; Urinary Antisep.—USES: Lithiasis, gout, rheum., chron. cystitis, gravel, &c.—DOSE: 1–2 Gm. (15–30 grn.) single; 5–8 Gm. (75–120 grn.) p.d.

Magnesium Bromate

$\text{Mg}(\text{BrO}_3)_2 + 6\text{H}_2\text{O} = 388.26$.—Colorl. cryst.—SOL.: 1.4 W.

Magnesium Bromide Merck—C.P.

$\text{MgBr}_2 + 6\text{H}_2\text{O} = 292.26$.—Colorl., v. deliq. cryst. or wh. granules; bitter taste.—SOL.: In less than 1 W.; eas. in A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.2%
Sulphate (SO_3).....	0.01%
Alkali Salts.....	0.20%
Ammonium Comp'ds (NH_3)...	0.030%
Calcium (Ca).....	0.03%
Heavy Metals.....	0.000%

USES: *Medic.*, as Nerve Sedative, in insom., hyst., nymphomania, tetan., epilepsy, &c.—DOSE: 0.6–1.3 Gm. (10–20 grn.) sev'l t.p.d.—CAUT.: Keep dry, fr. air.

Magnesium Cacodylate

$\text{Mg}[(\text{CH}_3)_2\text{AsO}_2)_2 + 2\text{H}_2\text{O} = 334.39$.—Wh. powd.—SOL.: W.—USES: Inst. of alkali arsenates; indicated in cases where cacodylates us'y are used (see sod. cacodyl.), but employed only subcut.—DOSE: 0.5–1 cc. (8–15 M) of 5% aqu. solut. subcut. p.d.

Magnesium Carbonate Merck—Reagent

A basic carbonate, cont'g abt 40% MgO .—Wh., bulky powd. or light, friable masses.—

SOL.: Acids w. effervescence; insol. pure W., but sol. in CO_2 -water.

MAXIMUM OF IMPURITIES

Water-sol. Substcs.....	0.750%
Substcs Insol. in HCl.....	0.000%
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.006%
Sulphate (SO_3).....	0.003%
Ammonia Ppt. (Al, Fe, P_2O_5 etc.).....	0.020%
Barium (Ba).....	0.003%
Calcium (Ca).....	0.05%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

USES: Prepar'g Mg salts; clarifying liquids by filtration; source of CO_2 .

Magnesium Carbonate Merck—C.P.

DESCRIPTION, SOL., etc.: As of the Reagent, above.

MAXIMUM OF IMPURITIES

Water-sol. Substcs.....	0.75%
Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.030%
Calcium (Ca).....	0.2%
Iron (Fe).....	0.010%
Other Heavy Metals.....	0.001%

USES: As of the Reagent, above.

do. Merck—U.S.P. X.—Powd.

Approx. $(\text{MgCO}_3)_4\text{Mg}(\text{OH})_2 + 5\text{H}_2\text{O} = 485.72$, equivalent to not less than 39.2% MgO , U.S.P.—Perf'ly wh., light masses or fine, wh., odorl. bulky powd.; slt earthy taste.—SOL.: v. sltly W.; CO_2 -W.; acids; insol. A.—ACTION: Antacid; Cath.; Antilithic.—USES: Constip., sour stomach, heartburn, gravel; increase coagul. of blood; also prepar. effervesc. magnes. citr. (both powd. & solut.), tooth powders, face powders, tooth pastes, &c.; antid. to acid poisons; clarifying liquids by filtration.—DOSE: 0.3–2 Gm. (5–30 grn.) given repeatedly; or singly, 2–4 Gm. (30–60 grn.); aver. dose, *antacid* 0.6 Gm. (10 grn.), & *lax.* 8 Gm. (2 dr.).—In VETER. MED. in dysentery & abnormal gastrointest. fermentative processes, partic. in young animals. *Horses & cattle*, 10–25 Gm. ($2\frac{1}{2}$ –6 dr.); *calves, foals, pigs & sheep*, 2–5 Gm. (30–75 grn.); *dogs & cats*, 0.3–1 Gm. (5–15 grn.).

do. Merck—Heavy—U.S.P. X

Obt'd by double decomp. of MgSO_4 & Na_2CO_3 .—Odorl., wh., gran. powd.—SOL.: As of the preceding.—USES: As preced.—DOSE: 0.3–1.3 Gm. (5–20 grn.) if repeated; 2–4 Gm. (30–60 grn.) per single dose.

do. Merck—Technical—Powd.

USES: Fireproof, heat insulat'g & polishing, comp'ds; prevent'g boiler scale; mineral waters; pigment & filter; paper manuf.; fertilizers.

Magnesium Chlorate

$\text{Mg}(\text{ClO}_3)_2 + 6\text{H}_2\text{O} = 299.34$.—v. deliq., wh. powd.; bitter taste.—SOL.: v. eas. W.—MELT.: 40° C.—USES: In epithelioma of lower lip as 20% oint.—CAUT.: Keep in well-stoppered bot.

Magnesium Chloride Merck—Reagent

$\text{MgCl}_2 + 6\text{H}_2\text{O} = 203.34$.—Wh. deliques. cryst.—SOL.: Abt 0.6 W., abt 2 A.—MELT.: At a little above 100°C .

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol.....	0.000%
Sulphate (SO_3).....	0.005%
Phosphate (P_2O_5).....	0.000%
Ammonium Comp'ds (NH_3)..	0.005%
Barium (Ba).....	0.002%
Calcium (Ca).....	0.010%
Arsenic (As).....	0.0003%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: Prepar'g magnesia mixture; reagent, f. uric acid (Ludwig).—CAUT.: Keep well stoppered.

Magnesium Chloride Merck—C.P.—Pure, Cryst.

$\text{MgCl}_2 + 6\text{H}_2\text{O} = 203.34$.—Colorl., deliq., bitter crystals.—SOL.: 0.6 W., abt 2 A.—MELT.: A little above 100°C .

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol.....	Trace
Phosphate (P_2O_5).....	0.002%
Sulphate (SO_3).....	0.010%
Ammonium Comp'ds (NH_3)..	0.050%
Barium (Ba).....	0.005%
Calcium (Ca).....	0.020%
Arsenic (As).....	0.0005%
Other Heavy Metals.....	0.000%

USES & CAUT.: As of the Reagent, above.

do. Merck—N.F. V—Cryst.

DESCRIPT. & SOL.: As preced'g.—ACTION: Aper.; Cath.—USES: Appetizer, in dyspep., incr. flow of bile, & in constip.—DOSE: 15–30 Gm. (4–8 dr.); aver. dose 15 Gm. (4 dr.).

do. Merck—Fused

$\text{MgCl}_2 = 95.24$.—Deliques. lumps.—SOL.: v. eas. W.

do. Technical

USES: Manuf. ice, "commercial" magnesia f. fireproof stones, disinfectants, various magnesia cements, & fire extinguishers; dressing cotton fabrics; fireproofing wood; manuf. HCl & Cl; as catalyst in var. oxid'n processes; w. NaCl as bleacher; laying dust on roads; in sweeping comp'ds; carbonizing wool.

Magnesium Citrate Merck—Scales

$\text{Mg}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 14\text{H}_2\text{O} = 703.32$.—Abt 17.2% MgO & abt 60% cryst. citric acid.—Wh., odorl. granules or powd.—SOL.: Diffic. W.—ACTION: Cath.; Antilithic.—DOSE: 2–8–15 Gm. (30–120–240 grn.) p.d.

do. Merck—Soluble

Abt 20% MgO & abt 80% cryst. citric acid.—Wh., odorl. granules or powd.—SOL.: Slowly in W.—ACTION & USES: As of the preced'g.

do. —Effervescent

Mixt. magnesium citrate, NaHCO_3 , citric acid, & sugar.—Coarsely gran., wh. powd.; mildly acid, pleas. taste.—SOL.: 2 W.—ACTION: Cath.; Antilithic.—USES: Constip., sick headache, & gravel.—DOSE: 8–30 Gm. (2–8 dr.).—CAUT.: Keep dry.

MAGNESIUM CITRATE, ACID—see Citresia

Magnesium Copaivate

Yellowish powd.—SOL.: Sltly A.—ACTION: Antisept.; Diur.; Lax.; Stim.—USES: Gonorr., leucorr., dysent., piles, & chron. bronch. catarrh.—DOSE: 0.6–1.3 Gm. (10–20 grn.) 3 t.p.d.

MAGNESIUM DIOXIDE—see Magnesium Peroxide

MAGNESIUM DIOXIDE, MEDICINAL—see Magnesium-Superoxol

MAGNESIUM FERROLACTATE—see Iron & Magnesium Lactate, Ferrous

Magnesium Fluoride Merck

$\text{MgF}_2 = 62.32$.—Wh. powd.—SOL.: v. sltly acids; insol. W.—Violet fluoresc. by electric light.—ACTION: Antiseptic.—USES: *Techn.*, manuf. soda by Weldon process, & glass.

Magnesium Formate

$\text{Mg}(\text{CHO}_2)_2 + 2\text{H}_2\text{O} = 150.38$.—Colorl. cryst. or granules.—SOL.: W.; insol. A.—USES: As of formic acid.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

Magnesium Glycerophosphate Merck—Soluble

$\text{MgPO}_4\text{C}_3\text{H}_5(\text{OH})_2 = 194.43$.—Wh., odorl. powd.—SOL.: Eas. W.; insol. A.—USES: As of calcium or sodium glycerophosphate.—DOSE: 0.2–0.6 Gm. (3–10 grn.); in habitual constipation 5–10 Gm. (75–150 grn.) p. day.

Magnesium Gynocardate

Brownish mass.—SOL.: Sltly hot A.—ACTION: Alterative.—USES: Leprosy, phth., chronic rheum., & scrof. condit.—DOSE: 1–4 Gm. (15–60 grn.).

MAGNESIUM HYDRATE—see Magnesium Hydroxide

MAGNESIUM HYDROGEN PHOSPHATE—see Magnesium Phosphate, Dibasic

MAGNESIUM HYDROGEN SULPHATE—see Magnesium Bisulphate

Magnesium Hydroxide—B.P.C.; Fr. Cod.

Magnesium Hydrate.— $\text{Mg}(\text{OH})_2 = 58.34$.—Wh., amorph. powd.—SOL.: Dil. acids; insol. W.—ACTION: Antacid.—USES: Gastric acidity, flatulence; manuf. magma of magnesia; *techn.*, recover g sugar fr. molasses.—DOSE: 0.3–4 Gm. (5–60 grn.).

MAGNESIUM HYPOCHLORITE—see Magnocid

Magnesium Hypophosphite Merck

$\text{Mg}(\text{H}_2\text{PO}_3)_2 + 6\text{H}_2\text{O} = 262.53$.—Fr. MgC_2O_4 & $\text{Ca}(\text{PH}_2\text{O}_2)_2$ solut. by boil'g.—Wh. cryst.—SOL.: 5 W.—ACTION: Nerve Stim.—USES: Phth., scrof., & loss of nerve power.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

MAGNESIUM HYPOSULPHITE—see Magnesium Thiosulphate

Magnesium Iodide Merck

$\text{MgI}_2 + 8\text{H}_2\text{O} = 422.29$.—Deliq. powd.; readily discolors.—SOL.: v. eas. W.—ACTION: Alter.; Sialag.—USES: Scrof., syph. & chronic rheum.—DOSE: 0.12–0.6 Gm. (2–10 grn.) sev'l t.p.d.

MAGNESIUM ISOVALERIANATE—see Magnesium Valerate

Magnesium Lactate

$\text{Mg}(\text{C}_3\text{H}_5\text{O}_3)_2 + 3\text{H}_2\text{O} = 256.48$.—Wh. cryst. powd.; v. bitter taste.—**SOL.**: 30 cold, 6 boil. W.; insol. A., B.P.C.—**ACTION**: Lax.; Antilithic.—**USES**: Constip., & in gravel; also to incr. coagul. of blood.—**DOSE**: 1–4 Gm. (15–60 grn.)

Magnesium Lactophosphate

Magnesium Phospholactate.—Mixt. $\text{MgHPO}_4 \cdot 3\text{H}_2\text{O}$ & $\text{Mg}(\text{C}_3\text{H}_5\text{O}_3)_2 \cdot 3\text{H}_2\text{O}$; B.P.C.—Wh. powd.; 45% magnesium lactate.—**SOL.**: W., B.P.C.—**USES**, &c.: As of magnes. lactate.—**DOSE**: 0.2–1 Gm. (3–15 grn.).—**INCOMPAT.**: Alkali carbonates.

Magnesium Malate

$\text{MgC}_4\text{H}_4\text{O}_5 + 3\text{H}_2\text{O} = 210.42$.—Wh., cryst. powd.—**SOL.**: W.—**ACTION**: Lax.; Antilithic.—**USES**: Mild Cathartic.—**DOSE**: 2–8 Gm. (30–120 grn.).

Magnesium Nitrate Merck—C.P.

$\text{Mg}(\text{NO}_3)_2 + 6\text{H}_2\text{O} = 256.43$.—Clear, colorl., deliq. cryst.—**SOL.**: Abt 1 W., eas. A.—**MELT.**: Abt 90°C .

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.010%
Barium (Ba).....	0.000%
Calcium (Ca).....	0.02%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%
Substcs Insol. in Alcohol.....	0.05%

Magnesium Oleate

$\text{Mg}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 = 587.03$.—Yellowish powd. or mass.—**SOL.**: Partially in A., E.; insol. W.—**USES**: To prevent the spontaneous ignition of benzin in cleaning establishments.

Magnesium Oxalate Merck

$\text{MgC}_2\text{O}_4 + 2\text{H}_2\text{O} = 148.36$.—Wh. powd.—**SOL.**: Mineral acids; v. sltly (1:1500) W.

Magnesium Oxide Merck—Reagent

Magnesia.— $\text{MgO} = 40.32$.—Wh., light, fine powd.—**SOL.**: Eas. dil. acids; alm. insol. W.; insol. A.

MAXIMUM OF IMPURITIES

Substcs Sol. in W.....	0.750%
Substcs Insol. in HCl.....	0.000%
Carbonate (CO_2).....	Traces
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.006%
Sulphate (SO_3).....	0.005%
NH_4OH Ppt. (Al, Fe_2O_3 , P_2O_5 etc.).....	0.030%
Barium (Ba).....	0.010%
Calcium (Ca).....	0.020%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

USES: Neutralizing agent; f. determ'g S in Fe & steel, organic, & o. substances.

Magnesium Oxide Merck—C.P.

DESCRIPTION & SOL.: As of the Reagent, above.

MAXIMUM OF IMPURITIES

Water-sol. Substcs.....	0.8%
Carbonate (CO_3).....	Traces
Chloride (Cl).....	0.020%
Nitrate (N_2O_5).....	0.030%
Sulphate (SO_3).....	0.050%
Calcium (Ca).....	0.3%
Iron (Fe).....	0.020%
Heavy Metals.....	Trace

USES: As of the Reagent, preceding.

do. Merck—Light—U.S.P. X

Light, or Calcined, Magnesia; Magnesia Usta.— $\text{MgO} = 40.32$.—v. light, bulky, odorl. wh. powd.—**SOL.**: Dil. acids; CO_2 -W.; pract. insol. W.; insol. A.—**ACTION**: Antacid; Lax.; Antilithic.—**USES**: *Intern.*, sick headache, heartburn, gout, dyspep., sour stomach, constip., gravel, & as antid. to As_2O_3 , & poison. by acids.—*Extern.*, ulcers, & abraded surf.; dust. powd. f. babies; & as base f. tooth powders.—**DOSE**: 0.6–2–4 Gm. (10–30–60 grn.); aver. dose *antacid* 0.25 Gm. (4 grn.), *lax.*, 3 Gm. (45 grn.). Small doses are also antilithic.—In **VETER. MED.**, *extern.* as dusting powd.; *intern.*, *cattle*, 10–25 Gm. ($2\frac{1}{2}$ –6 dr.); *foals*, *goats*, *sheep* & *pigs*, 2–10 Gm. ($\frac{1}{4}$ – $2\frac{1}{2}$ dr.); *dogs*, 0.2–1 Gm. (3–15 grn.).

do. Merck—Heavy—U.S.P. X—Powd.

Dense, wh., v. fine powd.; does not form hydroxide as readily as the light oxide.— $\frac{2}{7}$ as voluminous as magnesium oxide, light.—**USES & DOSES**: As of Magnesium Oxide, Light.

do. Merck—Technical

USES: Manuf. heat insulators, refractory crucibles & fire bricks, magnesia cements, & boiler scale comp'ds; paper making; in fertilizers for sugar beets; manuf. glass; in face powders; filler f. rubber; manuf. "powdered" oils, casein glue, sugar beet fertilizers.

MAGNESIUM OXIDE & SODIUM CARBONATE—see Eschka's Mixture

Magnesium Perborate—B.P.C.

Approx., $\text{Mg}(\text{BO}_3)_2 + 7\text{H}_2\text{O} = 268.23$.—Bulky powd.; grad'ly decomp. w. loss of active O.—**SOL.**: Sparingly in W. w. part. decomp'n.—**USES**: As of sod. perborate; w. precip. chalk in tooth powders.

MAGNESIUM-PERHYDROL—see Magnesium-Superoxol

Magnesium Permanganate

$\text{Mg}(\text{MnO}_4)_2 + 6\text{H}_2\text{O} = 370.28$.—Crumbly, bluish-black cryst.—**SOL.**: Eas. W.—**ACTION**: Powerful Antiseptic.—**USES**: As of potass. permang.

Magnesium Peroxide Merck—15%

Magnesium Dioxide.—Cont's 12%–15% MgO_2 the remainder consist'g of MgO & some H_2O .—Wh., tastel. powd.—**SOL.**: Acids, w. liber. of O; alm. insol. W.—**ACTION**: Powerful Oxidizer & Disinf.—**USES**: For *intern.* use, see Magnesium-

Superoxol.—*Techn.*, as oral antisept., & tooth powd.; Bleaching wool & silk; oxidizer.

Magnesium Peroxide Merck—Medicinal, 25%
—See Magnesium Superoxol

Magnesium Phenolsulphonate

Magnesium Sulphocarbonate, or Sulphophenylate.— $\text{Mg}(\text{C}_6\text{H}_4.\text{OH}.\text{SO}_3)_2 + 7\text{H}_2\text{O} = 496.69$.—Colorl. cryst.—*SOL.*: W.—*ACTION*: Laxative, & Intest. Antiseptic.—*DOSE*: 1–2 Gm. (15–30 grn.).

Magnesium Phosphate Merck—Dibasic—C.P.

Dimagnesium Orthophosphate; Magnesium Hydrogen Phosphate.— $\text{MgHPO}_4 + 3\text{H}_2\text{O} = 174.42$.—*Wh.*, cryst. powd.—*SOL.*: Dil. acids; sltly W.

MAXIMUM OF IMPURITIES

Carbonate (CO_2).....	None
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.050%
Arsenic (As).....	0.000%
Calcium (Ca).....	Abt 0.5%
Heavy Metals.....	0.000%
Matter Sol. in Dil. NH_4OH ...	0.50%

USES: Medic., as mild lax.—*DOSE*: 1–4 Gm. (15–60 grn.), 3 t.p.d.

do. Merck—Tribasic

Neutral Magnesium Phosphate.— $\text{Mg}_3(\text{PO}_4)_2 = 263.04$ + aq.—*Wh.* cryst. powd.—*SOL.*: Acids; insol. W.—*USES*: Peptic ulcer; antacid.—*DOSE*: 0.6–1.6 Gm. (10–25 grn.) ev. hr; aver. dose 1 Gm. (15 grn.).

MAGNESIUM PHOSPHATE, ACID, or MONOBASIC, or PRIMARY—see Magnesium Biphosphate

Magnesium Phosphate

$\text{MgHPO}_3 = 104.37$.—*Wh.*, cryst. powd.—*SOL.*: W.—*USES*: As of other phosphites.—*DOSE*: 0.3–0.6 Gm. (5–10 grn.) sev'l t.p.d.

MAGNESIUM PHOSPHOLACTATE—see Magnesium Lactophosphate

Magnesium Phthalate

$\text{MgC}_6\text{H}_4(\text{COO})_2 + 2\text{H}_2\text{O} = 224.42$.—*Wh.* cryst. powd.—*SOL.*: Eas. W.

MAGNESIUM PLATINOCYANIDE—see Platinum & Magnesium Cyanide

Magnesium Propionate

$\text{Mg}(\text{CH}_3.\text{CH}_2.\text{COO})_2 + \text{H}_2\text{O} = 188.45$.—*Wh.* powd.—*SOL.*: W.

Magnesium Pyrophosphate

$\text{Mg}_2\text{P}_2\text{O}_7 + 3\text{H}_2\text{O} = 276.77$.—*Wh.* powd.—*SOL.*: Acids.

MAGNESIUM RHODANIDE—see Magnesium Sulphocyanate

Magnesium Salicylate Merck

$\text{Mg}(\text{C}_7\text{H}_5\text{O}_3)_2 + 4\text{H}_2\text{O} = 370.53$.—Colorl. or sltly reddish, effloresc., cryst. powd.—*SOL.*:

W., A.—*ACTION*: Antisep.; Antirheum.; Antidiarr., &c.—*USES*: Typhus & typhoid fevers as intest. antisept., & in diarr.; also in dysent., rheum., pleurisy, &c.—*DOSE*: 0.5–2 Gm. (8–30 grn.) single; 3–6 Gm. (45–90 grn.) p. day.

Magnesium Silicate

Variable compos'n; approx., $3\text{MgSiO}_3 + 5\text{H}_2\text{O} = 391.34$.—Fine, wh. powd.—*INSOL.* W.—*ACTION*: Absorbent; Astring.; Antisep.—*USES*: Inst. of bism. subnit. in obstin. diarr. & endemic cholera. Does not darken the stools.—*Techn.*, as filler f. paints, varnishes, etc.; manuf. rubber, refractories (crucibles, bricks, etc.), porcelain, potteries, stoneware, glass, etc.; bleaching & filtering oils; clarifying liquids by filtration.—*DOSE*: 4–15 Gm. (1–4 dr.) per day, in v. fine powd.

MAGNESIUM SOZOIODOLATE—see Soziodole-Magnesium

Magnesium Stearate

$\text{Mg}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 = 591.06$.—The commercial article also contains some palmitate.—*Wh.* powd.—*INSOL.* W.; decomp. by acids.—*USES*: In skin diseases as dust'g powd.

Magnesium Sulphate Merck—Reagent

$\text{MgSO}_4 + 7\text{H}_2\text{O} = 246.49$.—Colorl., clear, somewhat effloresc. cryst.—*SOL.*: 1.5 cold, abt 0.3 boil'g W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.000%
Phosphate (P_2O_5).....	0.001%
Calcium (Ca).....	0.010%
Arsenic (As).....	0.0003%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%

USES: Prepar'g magnesia mixture; separating globulins fr. albumin.

Magnesium Sulphate Merck—C.P.—Cryst.

Epsom Salt; Bitter Salt.— $\text{MgSO}_4 + 7\text{H}_2\text{O} = 246.49$.—Sm., colorl., odorl., prisms or need.—*SOL.*: As of preceding.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Phosphate (P_2O_5).....	0.002%
Arsenic (As).....	0.0005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—C.P.—Dried

MgSO_4 + abt 30% H_2O .—*Wh.* powd.—*SOL.*: Abt 4 cold, abt 1.5 boil., W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Alkali Salts (as Na).....	0.500%
Arsenic (As).....	0.001%
Iron (Fe).....	0.003%
Other Heavy Metals.....	0.000%

USES: As of the cryst., but allowing f. difference in W. content.

Magnesium Sulphate Merck—U.S.P. X. Cryst. or Powd.

$\text{MgSO}_4 + 7\text{H}_2\text{O} = 246.49$.—Small, colorl., odorl. prisms or needles, or wh. powd.; bitter, saline, cooling taste.—**SOL.**: 1.3 W. at 25°C ., 0.2 boil. W., v. slowly in G.; alm. insol. A.—**ACTION**: Cath.; Refrigerant.—**USES**: *Intern.*, constip., lead colic, fevers, inflammatory affect., &c.—*Extern.*, aqu. solut. in erysip., orchitis, ivy poison., superfic. burns, acute artic. rheum., in painful inflamm., syph. & gonorrheic orchitis, arthritis, epididymitis, peritonitis; 1:16 solut. also as prophylactic f. bites of flies, gnats, fleas, & mosquitoes.—*Intraspinal Inj.*, in tetanus.—*Subcut.*, as regional anesth.—**DOSE**: As lax., 2–8 Gm. ($\frac{1}{2}$ –2 dr.) repeatedly, or 15–30 Gm. ($\frac{1}{2}$ –1 oz.) per single dose; aver. dose 15 Gm. (4 dr.).—In tetanus & epilepsy by *lumbar inj.*, 1 cc. (15 M) of a 25% aqu. solut. f. every 20–25 lb. body wt.—*Subcut.*, in artic. rheum., 4 cc. (60 M) 25% solut.; in habitual constip., 0.5 Gm. (8 grn.) in 2 cc. (30 M) W. once p.d. f. 1–2 days, & in inveterate cases f. 6–10 days; in chorea, 0.2 Gm. (3 grn.) incr. slowly to 3 Gm. (45 grn.) p.d.—**APPL.**: As local anesth. in form of bandages impregnated w. an aqu. solut. *Spinal inj.* causes in 3–4 hrs a complete analgesia of legs & of pelvic & abdominal regions lasting 8–14 hrs.—**VETER. MED.**, *horses*, 250–500 Gm. (approx. $\frac{1}{2}$ –1 lb.); *cattle*, 500–1000 Gm. (approx. 1–2 lb.); *sheep & goats*, 50–100 Gm. (approx. 3–6 oz.); *pigs*, 25–50 Gm. ($6\frac{1}{2}$ –13 dr.); *dogs*, 10–25 Gm. ($2\frac{1}{2}$ –6 $\frac{1}{2}$ dr.); *cats*, 2–5 Gm. (30–75 grn.); *fowl*, 1–2 Gm. (15–30 grn.).

do. Merck—Dried

$\text{MgSO}_4 + \text{abt } 30\% \text{ H}_2\text{O}$.

do. Merck—Technical—Cryst.

Colorl. cryst., or dry powd. (w. abt 35% W.).—**USES**: Weighting cotton & silk; incr. the bleaching action of chlorinated lime, manuf. mother-of-pearl & frosted papers, fire-proofing fabrics; Meidlinger's battery; mineral waters; dyeing & printing calicoes; in fertilizers, explosives & matches; tanning leather; manuf. intermediates.

Magnesium Sulphite Merck

$\text{MgSO}_3 + 6\text{H}_2\text{O} = 212.48$.—Colorl. cryst. or wh. cryst. powd.; grad. changes to sulphate on expos.—**SOL.**: W.—**ACTION**: Antisep.; Cath.—**USES**: Inst. of sod. sulphite (has less disagree. taste) in diphth., typhoid, puerperal fever, scarlatina, pyemia, etc.—*Techn.*, manuf. sulphite pulp; extract'g cellulose fr. materials cont'g lignins.—**DOSE**: 0.6–2 Gm. (10–30 grn.) single; 10–20 Gm. (150–300 grn.) p. day. In diphth. 0.3 Gm. (5 grn.) 3–9 t.p.d., & by insufflation.

MAGNESIUM SULPHOCARBOLATE—see Magnesium Phenolsulphonate

Magnesium Sulphocyanate

Magnesium Sulphocyanide, or Rhodanide.— $\text{Mg}(\text{SCN})_2 + 4\text{H}_2\text{O} = 212.53$.—Colorl., deliq. cryst.—**SOL.**: W.—**CAUT.**: Keep dry & well stoppered.

MAGNESIUM SULPHOCYANIDE—see Magnesium Sulphocyanate

MAGNESIUM SULPHOPHENYLATE—see Magnesium Phenolsulphonate

Magnesium-Superoxol

Magnesium-Perhydrol Merck; Magnesium Di-(or Per-) oxide, Medicinal, Merck.—25% MgO_2 .—Magnesium peroxide prepared according to a special process, & of a high degree of purity.—**Volumin.**, wh. powd.; alm. insol. W.—**ACTION**: Disinfect.; Antacid; Oxidizer. Converted by the acid gastric juice into Mg salts (chiefly chloride) & H_2O_2 .—**USES**: Abnorm. gastric & intest. fermentative processes, fetid eructations, gastric dilatation, infantile diarrh., habit. constip., fetid breath, heartburn, hyperacidity, vomiting, nausea "acid stomach," flatulence, & autointoxication. Also excellent as an addit. to tooth powders, & as test f. bilirubin (Gunther; Sahli).—**DOSES**: In digestive disturbances, adults, 0.3–1.3 Gm. (5–20 grn.); children, 0.15–0.25 Gm. ($2\frac{1}{2}$ –4 grn.); in diar., 0.15–0.25 Gm. ($2\frac{1}{2}$ –4 grn.) in keratinized gelat. caps. Ordinarily $\frac{1}{2}$ –1 teaspoonful may be given 3–4 t.p.d.—In **VETER. MED.**, remarkably efficient in distemper in *dogs*, a level teaspoonful w. 1 table-spoonful W. 3 t.p.d.

do. Merck—Tablets—5 Grains Ea.
(known as Peroxoids, q.v.)

MAGNESIUM TETRAHYDROGEN PHOSPHATE—see Magnesium Biphosphate

Magnesium Thiosulphate

Magnesium Hyposulphite.— $\text{MgS}_2\text{O}_3 + 6\text{H}_2\text{O} = 244.54$.—Colorl. cryst.—**SOL.**: W.—**ACTION**: Antisep.; Cath.—**DOSE**: 0.6–2 Gm. (10–30 grn.).

Magnesium Tungstate

Magnesium Wolframate.—Wh. cryst.—Insol. W.—Fluoresces in Roentgen rays, hence used like calcium tungstate in radiography.

Magnesium Valerate

Magnesium Isovalerianate.— $\text{Mg}(\text{C}_5\text{H}_9\text{O}_2)_2 = 226.51$.—Wh. powd.; charact. valerian odor.—**SOL.**: W., A.—**USES**: As of o. valerates.—**DOSE**: 0.2–0.6 Gm. (3–10 grn.) sev'l t.p.d.

MAGNESIUM WOLFRAMATE—see Magnesium Tungstate

Magnesium & Ammonium Phosphate Merck

Magnesium & Ammonium Orthophosphate.— $\text{Mg}(\text{NH}_4)\text{PO}_4 + 6\text{H}_2\text{O} = 245.50$.—Wh. powd.—**SOL.**: Dil. acids; insol. W.

Magnesium & Ammonium Sulphate

$\text{Mg}(\text{NH}_4)_2(\text{SO}_4)_2 + 6\text{H}_2\text{O} = 360.64$.—Colorl. cryst.—**SOL.**: W.

MAGNETIC IRON ORE—see Magnetite

MAGNETIC PYRITES—see Pyrrhotite

Magnetite—Mineral

Lodestone; Magnetic Iron Ore.—**OCCUR.**: Norway; Sweden; Siberia; U. S.; Canada.—**COM-**

POS.: Fe_3O_4 , or $(\text{FeO}_2)_2\text{Fe}$ w. admixed $([\text{FeTiO}_3]_2\text{Fe})$.—CRYST. SYST.: Reg.—LUSTER: Metallic to submetallic or dull.—COLOR: Iron black.—STREAK: Black.—HARDN.: 5.5–6.5.—SP. GR.: 5.168–5.180.—USES: Important iron ore, & in manuf. magnets.

Magnocid

Magnesium Hypochlorite.— $\text{Mg}(\text{OCl})_2$ + variable amts of $\text{Mg}(\text{OH})_2$ or MgO .—Wh. powd.; abt 35% Cl.—SOL.: Diffic. W., but sufficiently so to afford soluts (e.g., 2%, w. vigorous shak'g) f. therap. purposes.—ACTION: Powerful Antisep.; Deodorant.—USES: Infected purulent wounds, & as a disinfecting & deodorizing wash inst. of Dakin's & o. chlorine soluts; also in veter. medicine in var. skin diseases, as vaginal wash, etc.

MAHOGANY BROWN—see Copper Ferrocyanide, Cupric

MA HUANG = EPHEDRA VULGARIS, var. helvetica

MAIDENHAIR—see Adiantum

MALABAR NUT—see Adhatoda

MALACHITE, ARTIFICIAL—see Copper Carbonate, Green

MALACHITE, BLUE, ARTIFICIAL—see Copper Carbonate, Blue

Malachite Green—Cryst. or Powd.

Benzaldehyde, New Victoria, Fast, Diamond B., Solid O., Benzoyl, or Benzal, Green.—Double salt of tetramethyldiparaminotriphenylcarbydride hydrochlor. (us'y) w. ZnCl_2 .—Yellow cryst. or powd.—SOL.: W. w. bluish-green color; ethyl- & methyl-A.—USES: *Medic.*, in trypanosomiasis.—*Extern.*, wound antisept.—*Techn.*, for directly dyeing silk & wool, jute & leather, bluish-green; cotton, after mordanting; also as stain; also as test f. HCl (Köster), & SO_2 (Votocek).—DOSE: In trypanosomiasis, 1 cc. (15 M) of a 1:2000 solut. in 0.9% NaCl solut. subcut. (*not* intraven.).

MALACHITE GREEN, G—see Brilliant Green

Malakin

Salicylparaphenetidin.— $\text{C}_2\text{H}_5\text{O}[1].\text{C}_6\text{H}_4.\text{N}:\text{HC}.\text{C}_6\text{H}_4.\text{HO}[4] + \text{H}_2\text{O} = 259.22$.—50% salicylaldehyde.—Fine, yellow need.—SOL.: Hot A.; B., E.; insol. W.—MELT.: 92°C .—ACTION: Antipyr.; Analg.; Teniafuge; slower in action than antipyrine or acetanilid.—USES: Fever; rheum., neural, tapeworm, &c.—DOSE: 0.5–1 Gm. (8–15 grn.) single; 6 Gm. (90 grn.) p.d.; antipyretic in phth., 0.5 Gm. (8 grn.) ev. 2 hrs.

MALAYAN CAMPHOR—see Borneol

MALE FERN—see Aspidium

MALLOTXIN—see Kamalin

Mallow—N.F. V

Common, or High, Mallow; Cheese-flower.—Lvs (flowers, Fr. Cod.) of *Malva sylvestris*, L., & *M. rotundifolia*, L., Malvaceæ.—HABIT.: Europe; Asia; naturalized in U. S.—CONSTIT.: Pectin; tannin; coloring matter.—ACTION: Demulc.; Emoll.

MALONYLUREA—see Acid Barbituric

MALOUREA—see Barbital; Veronal

MALT SUGAR—see Maltose

Malt Sugar-Dextrin Merck

Essent'ly a mixt. of abt eq. parts of dextrins & maltose obtd by the natural act. of enzymes upon cereal products.—Fine, creamy-white, dry, fluffy powd.—SOL.: Compl. in W. or milk.—USES: Partic. adapted f. prepar'g "modified milk" f. infant feeding; is easily assimilated & may be given in relatively large quantities without causing indigestion, diarrh. or o. charact. disturbances due to faulty or insufficient assimilation of sugars.

MALTIN—see Diastase of Malt

Maltose Merck—Purified

Malt Sugar.— $\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} = 360.25$.—Dextrogyrate carbohydrate fr. starch paste, by diastase.—Wh., cryst. powd.—SOL.: W., A.—ACTION: Nutr.—USES: Sweetener; also in bacteriolog. culture media.

do. —Technical

Yellowish-wh. powd.—SOL.: W.

Mammary Gland—Dried, Powd.

Fr. the fresh udders of cows; 1 part = 8.75 parts fresh gland.—USES: Uterine fibroma, menorrhagia, dysmenorrhea, & metrorrhagia.—DOSE: 0.3–0.6 Gm. (5–10 grn.) 3 t.p.d.

do. —Compressed Tablets, 0.1 Gm. Each

Manaca—N.F. V

Manacan; Vegetable Mercury; Mercurio-vegetal; Camganiba; Geratacaca.—Dried Root of *Brunfelsia Hopeana*, Benth. (*Fransceia uniflora*, Pohl), Solanaceæ.—HABIT.: Brazil.—CONSTIT.: Manacine (alkaloid); esculetin; fluorescent substce probably ident. w. gelsemic acid.—ACTION: Antisyphil.; Antiscrofular; Antirheumat.; Cathart.; Diuret.; Alterat.—USES: Rheum., gout, & syph.; somet. in asthma & pneumonia.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose 1 Gm. (15 grn.).—Fl'dextr., 0.3–1.3 cc. (5–20 M).

MANACAN—see Manaca

MANCHESTER BROWN—see Bismarck Brown

MANCHESTER YELLOW—see Martius Yellow

MANCONA BARK—see Sassy Bark

MANDARIN—see Tropaeoline O O O No. 2

MANDARIN G R—see Orange T

MANDELICACID NITRILE—see Benzaldehydecyanhydri

Mandelin's Solution—Test for Alkaloids

Solut. 1 Gm. ammonium vanadate in 200 Gm. conc. H_2SO_4 .—Affords brown, red, or green color reactions w. alkaloids (see pp. 560–563).

MANDIOL STARCH—see Tapioca

MANDRAKE—see Podophyllum

Manganese Merck

Mn = 54.93; first isolated by Gahn in 1774.—v. hard, brittle, steel-gray lumps; lustr., whitish-gray fract.—SOL.: Dil. acids.—SP. GR.: 7.42.—MELT.: 1230° C.—BOIL.: 1900° C.—USES: *Techn.* important bec. of its alloys, e.g., ferromangan, ferrosilicon-mangan, & copper mangan (manganese bronze); manuf. manganese steel; in ceramics; the powd. is used as a catalyst.

Manganese Acetate Merck—Manganous

$\text{Mn}(\text{C}_2\text{H}_3\text{O}_2)_2 + 4\text{H}_2\text{O} = 245.06$.—Transp., pale red cryst.—SOL.: W., A.—USES: *Techn.*, as mordant in dyeing; manuf. bistre; as catalyst; drier f. paints & varnishes (1–1.5:1000); tanning & finishing leather.

Manganese Albuminated

Pale yellow, alm. wh. scales.—SOL.: W.—ACTION: Tonic & Alter.—USES: Chlorosis & anemia, alone or w. some iron prep. & in doses as of latter.

Manganese Arsenate—Manganous

$\text{MnHAsO}_4 = 194.90$.—Reddish-wh. powd.—SOL.: Acids; v. sltly in W.—ACTION: Alter.; Tonic.—USES: Anemia & chlorosis.—DOSE: 0.002–0.01 Gm. ($\frac{1}{30}$ – $\frac{1}{6}$ grn.) sev'l t.p.d.—ANTID.: As for As_2O_3 .

Manganese Benzoate Merck—Manganous

$\text{Mn}(\text{C}_7\text{H}_5\text{O}_2)_2 + 4\text{H}_2\text{O} = 369.14$.—Pale red powd.—SOL.: W.; sltly A.

MANGANESE BINOXIDE

MANGANESE, BLACK OXIDE OF } see Manganese Dioxide

Manganese Borate Merck—Manganous

Siccative.—Reddish-wh. powd.—Insol. W., A., decomp. on long contact w. W.—USES: *Techn.* in drying varnishes & oils (as siccative w. linseed oil 1:500), & in leather industries.

Manganese Bromide Merck—Manganous

$\text{MnBr}_2 + 4\text{H}_2\text{O} = 286.83$.—Rose-red cryst.—SOL.: W., w. decomp.—DOSE: 0.06–0.5 Gm. (1–8 grn.) sev'l t.p.d.—CAUT.: Keep fr. air & well stoppered.

Manganese Butyrate—Manganous

$\text{Mn}(\text{C}_4\text{H}_7\text{O}_2)_2 = 229.08$.—Rose-red powd.—SOL.: W.—USES: In gonorrh., & in staphylococcus infection (furunculosis) by intramusc. inj. into glutei of 1 cc. (15 M), followed 4 to 5 days later by 1.5 cc. (23 M), of a 1% solut.; only 2 injections are to be given.

Manganese Cacodylate—Manganous

$\text{Mn}[(\text{CH}_3)_2\text{AsO}_2]_2 = 328.97$.—Reddish-wh., cryst. powd.—SOL.: W.—USES & DOSES: As of Iron Cacodylate.

Manganese Carbonate Merck—C.P.

$\text{MnCO}_3 = 114.94$.—Fine, amorph., light-brown

powd.—SOL.: Eas. dil. HCl, H_2SO_4 , acetic acid; insol. W., A.

MAXIMUM OF IMPURITIES

Water-sol. Impurities.....	0.500%
Chloride (Cl).....	0.030%
Sulphate (SO_3).....	0.020%
Calcium (Ca).....	0.020%
Zinc or Nickel (as Zn).....	0.050%
Iron (Fe).....	0.020%
Other Heavy Metals.....	0.000%

USES: *Chem.*, prepar'g various Mn salts.—*Medic.*, as Tonic, in anemia & chlorosis.—DOSE: 0.3–1 Gm. (5–15 grn.) 2–3 t.p.d.

do. Merck—Powd.

USES: As pigment ("Manganese white"); in fertilizers; drier f. varnishes.

Manganese Chloride Merck—C.P.—Cryst.

$\text{MnCl}_2 + 4\text{H}_2\text{O} = 197.91$.—Deliq., rose-red cryst.—SOL.: Abt 1 W., A.—MELT.: Abt 50° C.

MAXIMUM OF IMPURITIES

Sulphate (SO_3).....	0.030%
Alkalies & Earths.....	0.25%
Iron (Fe).....	0.001%
Zinc (Zn).....	0.03%
Other Heavy Metals.....	0.000%

USES: *Chem.*, determ. O & boric acid; reag. f. albumin (Blum), ozone (Englert-Wild), & perchlorate (Gooch, Kreider).—*Medic.*, intern., chlorosis, chron. cutan. eruptions, & hemorrhages.—*Extern.*, in solut. as mouthwash & gargle in syphil. ulcers in mouth.—DOSE: 0.12–0.6 Gm. (2–10 grn.).—CAUT.: Keep well stoppered.

do. Merck—Cryst.

Techn., in dyeing (manganese bistre), manuf. Cl, disinfecting, purifying glass & illuminating gas, & regenerating MnO_2 ; linseed oil drier; instead of NH_4Cl in batteries; as catalyst.—CAUT.: Keep well stoppered.

Manganese Chromate—Manganous, Basic

$2\text{MnO} \cdot \text{CrO}_3 + 2\text{H}_2\text{O} = 277.89$.—Brown powd.—SOL.: Partially in W.—USES: *Techn.*, as mordant in dyeing; pigment in water colors; decorating porcelain & chinaware.

Manganese Citrate Merck—Manganous

Approx. $\text{MnHC}_6\text{H}_5\text{O}_7 = 245.01$.—Wh. or reddish-wh. powd.—SOL.: Dil. acids; v. sltly W.

do. Merck—Soluble—N.F. V—Powd. or Scales

Manganese & Sodium Citrate.—48%–52% $\text{Mn}_3(\text{C}_6\text{H}_5\text{O}_7)_2$ (when dried).—Yellow scales, or yellowish or pinkish-wh. powd.—SOL.: Slowly in abt 4 W. at 25° C., sltly more sol. in boil. W. & alm. insol. A., N.F.—ACTION: Tonic; Astring.—USES: In chlorosis, & inst. of iron citrate in anemic condit.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose 0.2 Gm. (3 grn.).

Manganese Dioxide Merck—Artificial—C.P.

Manganese Bin-, Per-, or Super-, Oxide; Black Oxide of Manganese.— $\text{MnO}_2 = 86.93$.—

Fine, heavy, brownish-black powd.—SOL.: HCl (Cl evolved); insol. W.

MAXIMUM OF IMPURITIES

Substs. Insol. HCl. 0.20%

USES: Oxidizer; prepar. Cl & O; detect. strychnine, brucine, apocodeine, aniline, & artif. color in red wines.

Manganese Dioxide Merck—Precipitated—U.S.P. IX

Black or dark-brown, odorl., tastel., perman. powd.—SOL.: Hot mineral acids; insol. W., A.—ACTION: Tonic; Alter.; Emmen.—USES: Flatul., amenor., scrofula, septicemia, syph., chlorosis, gastrodynia, pyrosis, & var. skin dis.—*Techn.*, f. detect'g strychnine, brucine, apocodeine, aniline, artif. coloring in red wines, & nataloin.—DOSE: 0.12–0.6 Gm. (2–10 grn.); aver. dose 0.25 Gm. (4 grn.).—APPL.: In 12%–15% oint. in porrigo, exanthema, scabies, &c.—CAUT.: MnO₂ is a strong oxidizer, hence it should not be heated or rubbed w. organic matter or other oxidizable substances, e.g., sulphur, sulphides, phosphides, hypophosphites, etc.

do. Merck—Artificial—Technical, abt 85%

USES: *Techn.* in electrotechn., pigments, rubber goods; manuf. Br, Cl, I, O; decolor. glass; manuf. manganese steel, intermediates & dyes; in colored pottery glazes; in dry cells & batteries, fireworks, explosives, & matches, driers for paints & varnishes, rubber & dye manuf., printing & dyeing textiles, in fertilizers, removing iron fr. drinking water.

do. Merck—Natural—Powd.—80%–90%

Pyrolusite; Black Manganese Oxide.—Dark-brown lumps or powd.; 80%–90% MnO₂.—USES: *Techn.*, largely in manuf. manganese steel; oxidizer; prep. oxygen; in electrotechn. as MnO₂ paper f. dry galvanic piles & Leclanché elements; also f. making amethyst glass, decolorizing glass, & f. painting on porcelain, faience, & majolica.

Manganese Ferrocyanide—Manganous

Mn₂Fe(CN)₆ + 7H₂O = 447.89.—Greenish-wh. powd.—Insol. W.

Manganese Fluoride—Manganous

MnF₂ = 92.93.—Reddish powd.—SOL.: Acids; insol. W., A.

Manganese Glycerate—Manganous

Mn(C₃H₅O₂)₂ + 3H₂O = 319.09.—Wh. powd.—SOL.: W.

Manganese Glycerophosphate Merck

MnC₃H₇O₂PO₄ = 225.04.—Wh. or sltly reddish, odorl. powd.—SOL.: acids; sltly W.; insol. A.—USES: As following.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

do. Merck—Soluble

Manganese glycerophosphate w. some citric acid; 70% to 75% MnC₃H₇PO₆, N.F. V.—Wh. or sltly reddish, odorl. powd.—SOL.: 4 W. at 25° C., N.F. V.—USES: Deficient nerve nutrition, neurasthenia, anemia, chlorosis, Addison's dis., phosphaturia, convalesc. fr. influenza,

beriberi, &c.; also in tetanus.—DOSE: 0.06–0.3 Gm. (1–5 grn.) 3 t.p.d.; aver. dose 0.2 Gm. (3 grn.); in tetanus, 10 cc. (150 M) 25% solut. inj. ev. 3 hrs.

MANGANESE GREEN—see Barium Manganate

MANGANESE HYDRATE—see Manganese Hydroxide, Manganic

Manganese Hydroxide—Manganic

Manganese Hydrate.—Mn₂O₂(OH)₂ = 175.88.—Dark-brown powd.—SOL.: Hot HCl.—USES: *Techn.*, under the name "manganese bistre" as pigment f. fabrics, & painting on porcelain.

Manganese Hypophosphite Merck—Manganous—N.F. V—Gran. or Powd.

Mn(H₂PO₂)₂ + H₂O = 203.06.—Pink, odorl., alm. tastel., perman. cryst.—SOL.: Slowly in 8 cold, 6 boil'g. W., & insol. A.—USES: Anemia, chlorosis, & scrofula.—DOSE: 0.06–0.6 Gm. (1–10 grn.); aver. dose 0.2 Gm. (3 grn.).

Manganese Iodide Merck—Manganous

MnI₂ + 4H₂O = 380.83.—Yellowish-brown, deliq., cryst. masses.—SOL.: W., w. gradual decomp.—ACTION: Alter.; Tonic; Antisep.—USES: Anemia, chlorosis, scrof., & splenic enlargement.—DOSE: 0.06–0.2 Gm. (1–3 grn.) single; up to 0.75 Gm. (12 grn.) p. day.

MANGANESE ISOVALERIANATE—see Manganese Valerate

Manganese Lactate Merck—Manganous

Mn(C₃H₅O₃)₂ + 3H₂O = 287.09.—Pale-red crusts.—SOL.: W.; A.—ACTION: Tonic.—USES: chlorosis, & all weak & anemic condit.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Manganese Lactophosphate—Manganous

Manganese Phospholactate.—Manganous phosphate w. manganous lactate.—Reddish-wh. powd.—SOL.: Sltly W.—ACTION: Tonic.—USES: Convalesc. fr. fevers, in anemia, chlorosis, tuberc., & scrof.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Manganese Linoleate—Fused

Dark-brown, plaster-like mass.—SOL.: C., & hot linseed oil.—USES: *Techn.*, in varnishes (1 part dissolved in 100 linseed oil at 120°–150° C.) as drier.

MANGANESE MONOSULPHIDE—see Manganese Sulphide

MANGANESE MONOXIDE—see Manganese Oxide

Manganese Nitrate Merck—Liquid—C.P., 50%

50% solut. of Mn(NO₃)₂ + 4H₂O = 251.01.—Pinkish liq.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.100%
Alkali & Earths.....	0.50%
Iron (Fe).....	0.002%
Zinc (Zn).....	0.050%
Other Heavy Metals.....	0.000%

Manganese Nitrate Merck—Manganous

Approx. $\text{Mn}(\text{NO}_3)_2 + 4\text{H}_2\text{O} = 251.01$.—Pink, deliq. cryst.—SOL.: W.—USES: *Techn.*, coloring ceramics; manuf. MnO_2 intermediates.

Manganese Oleate—Manganous

$\text{Mn}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2 = 617.64$.—Brown, gran. mass.—SOL.: E., oleic acid; sltly in A.; insol. W.—USES: Inunction in chlorosis & anemia.—*Techn.*, in varnishes.

MANGANESE ORTHOPHOSPHATE, NORMAL—see Manganese Phosphate

Manganese Oxalate—Manganous

$\text{MnC}_2\text{O}_4 + 2\text{H}_2\text{O} = 178.97$.—Wh. cryst. powd.—SOL.: Sltly W.—USES: *Techn.*, as drier f. paints, varnishes & enamels, & in manuf. manganous oxide.

MANGANESE OXIDE, BLACK—see Manganese Dioxide, Native

Manganese Oxide Merck—Manganomanganic

$\text{Mn}_3\text{O}_4 = 228.79$.—Brownish-black powd.—SOL.: HCl.

do. Merck—Manganous

Manganese Monoxide or Protioxide.— $\text{MnO} = 70.93$.—Grayish-green powd.—SOL.: Acids.—ACTION: Tonic.—USES: Chlorosis, & anemia.—*Techn.*, as green pigment.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

“MANGANESE PEPTONATE”—see Manganese, Peptonized

Manganese Peptonized Merck

“Manganese Peptonate,” so-called.—Brown powd.; cont. abt 4% $\text{Mn}_2\text{O}_3 =$ abt 3% Mn.—SOL.: W.—ACTION: Tonic; Nutritive; Hematinic.—USES: Anemia & chlorosis.—DOSE: 0.6–1.3–4 Gm. (10–20–60 grn.).

MANGANESE PEROXIDE—see Manganese Dioxide

Manganese Phenolsulphonate

Manganese Sulphocarbonate, or Sulphophenylate.— $\text{Mn}(\text{C}_6\text{H}_4.\text{OH}.\text{SO}_3)_2 + 7\text{H}_2\text{O} = 527.30$.—Reddish cryst.—SOL.: W., A.—ACTION: Tonic; Antisep.—USES: Intest. derang. w. anemia or chlorosis.—DOSE: 0.2–0.5 Gm. (3–8 grn.).

Manganese Phosphate Merck—Manganous

Manganese Hydrogen Phosphate.—Approx. $\text{MnHPO}_4 + 3\text{H}_2\text{O} = 205.03$.—Pink powd.; us'y cont's some tribasic phosphate.—SOL.: Acids; alm. insol. W.—USES: Chlorosis; also techn. as reag.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

do. —Manganous, Normal

Manganese Orthophosphate.— $\text{Mn}_3(\text{PO}_4)_2 + 7\text{H}_2\text{O} = 480.98$.—Reddish-wh. powd.—SOL.: HCl; insol. W.—USES: As of the preced'g.

MANGANESE PHOSPHOLACTATE—see Manganese Lactophosphate

MANGANESE PROTOXIDE—see Manganese Oxide, Manganous

Manganese Pyrophosphate—Manganous

$\text{Mn}_2\text{P}_2\text{O}_7 + 3\text{H}_2\text{O} = 337.99$.—Amorph., white powd.—SOL.: In excess solut. sod. or potass. pyrophos.; insol. W.

Manganese Resinate—Fused, or Precipitated

Dark, brownish-black, resin-like masses, or flesh-colored, loose powd.—SOL.: C., & hot linseed oil.—USES: As drier, in varnishes (2–3 parts are dissolved in 100 linseed oil at 120°–150° C.).

Manganese Saccharate—Abt 10% Mn_2O_3

Brownish-red powd.—SOL.: Eas. W.—USES: As of saccharated iron carbonate.—DOSE: 0.25–1 Gm. (4–15 grn.).

Manganese Salicylate Merck—Manganous

$\text{Mn}(\text{C}_7\text{H}_5\text{O}_3)_2 + 2\text{H}_2\text{O} = 365.11$.—Rose-red cryst. powd.—SOL.: W., A.—ACTION: Tonic; Alter.; Antirheum.—USES: Anemia, chlorosis, rheum., & gout.—DOSE: 0.12–0.6 Gm. (2–10 grn.).

Manganese Silicate—Manganous

$\text{MnSiO}_3 = 131.03$.—Red cryst., or yellowish-red powd.—Insol. W.—USES: *Techn.*, as color. f. special glass; manuf. pottery & porcelain; producing red glazes.

Manganese Succinate—Manganous

$\text{MnC}_4\text{H}_4\text{O}_4 + 4\text{H}_2\text{O} = 243.05$.—Wh., cryst. powd.—SOL.: W.

Manganese Sulphate Merck—Manganous—Reagent

$\text{MnSO}_4 + 4\text{H}_2\text{O} = 223.05$.—Pale, red cryst.—SOL.: Abt 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Alkali & Mg Salts.....	0.10 %
Calcium (Ca).....	0.020%
Iron (Fe).....	0.001%
Nickel & Zn (Ni, Zn).....	0.020%
Other Heavy Metals.....	0.000%
Substcs Reduc'g KMnO_4	Trace

USES: In permanganate titrations in presence of HCl; determ'g O & H_3BO_3 ; detect'g cin-namic acid (Scoville), & O (Arnold-Mentzel).

Manganese Sulphate Merck—C.P.—Cryst.

$\text{MnSO}_4 + 4\text{H}_2\text{O} = 223.05$.—Transp., pale rose-red, sltly effloresc., odorl., sltly bitter & astr. cryst.—SOL.: Less than 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Alkalies & Magnesium Salts...	0.250%
Iron (Fe).....	0.004%
Nickel, Zinc (Ni, Zn).....	0.050%
Other Heavy Metals.....	0.000%
Substcs Reduc. Permanganate.	Trace

USES: As of the Reagent, above.

do. Merck—Cryst.

DESCRIPT.: As preced'g.—SOL.: Abt 1 W. at 25° C., abt 0.6 boil. W., & insol. A.—ACTION: Tonic; Cholag.; Cath.; Stypt.—USES: *Intern.*, anemia, chlorosis, arthritis, & jaundice.—*Extern.*, hemorrhage.—DOSE: 0.3–0.6 Gm. (5–10 grn.); aver. dose 0.2 Gm. (3 grn.).—APPL.: In 10%–20% oint. in stiff joints (gout, rheumat., &c.).

Manganese Sulphate Merck—Dried

$\text{MnSO}_4 + \text{H}_2\text{O} = 169.01$.—Pale pink powd.—
USES: *Techn.*, dyeing; red glazes f. porcelain;
manuf. varnishes & boiled oils, & chrome
brown; in fertilizers f. vines & tobacco.

do. Merck—Technical—Powd.

USES: As preced'g.

Manganese Sulphide—Manganous

Manganese Monosulphide.— $\text{MnS} = 86.99$.—
Greenish-brown powd.—SOL.: Acids; insol. W.
—USES: *Techn.*, as green pigment (feuille
morte).

Manganese Sulphite—Manganous

$\text{MnSO}_3 = 134.99$.—Brownish-red or grayish-
black powd.—SOL.: In aqu. solut. SO_2 .—AC-
TION: Tonic; Cholag.; Antisep.—USES: Anemia,
chlorosis, & diar.—DOSE: 0.5–1 Gm. (5–15
grn.).

MANGANESE SULPHOCARBOLATE—see Manganese
Phenolsulphonate

MANGANESE SULPHOPHENYLATE—see Manganese
Phenolsulphonate

MANGANESE SUPEROXIDE—see Manganese Di-
oxide

Manganese Tartrate—Manganous

$\text{MnC}_4\text{H}_4\text{O}_6 = 202.98$.—Wh. powd.—SOL.: v.
sltly W.—USES: Chlorosis.

Manganese Valerate—Manganous

Manganese iso-Valerianate.— $\text{Mn}(\text{C}_5\text{H}_9\text{O}_2)_2 +$
 $2\text{H}_2\text{O} = 293.16$.—Brown powd.—SOL.: W.

Manganese & Ammonium Sulphate

Manganous Ammonium Alum.— $\text{MnSO}_4 \cdot$
 $(\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O} = 391.23$.—Pale red cryst.
—SOL.: W.

MANGANESE & SODIUM CITRATE—see Manganese
Citrate, Soluble

MANGANOUS AMMONIUM ALUM—see Manganese
& Ammonium Sulphate

Mangin's Solution—Test for Cellulose

(1) 1 Gm. I + 3 Gm. KI in 200 cc. W.—(2) 1
Gm. KI + 0.2 Gm. I + 20 Gm. conc. aqu. solut.
 CaCl_2 .—(3) 1.3 Gm. I + 6.5 Gm. KI + 20 Gm.
 ZnCl_2 + 10.5 cc. W.—(4) 0.3 Gm. I + 0.5 Gm.
KI + 25 Gm. phosphoric acid.—USES: Micro-
scopic detect. cellulose (blue color).

Mangini's Solution—Test for Alkaloids

Solut. KI + BiI_3 in conc. HCl.—Affords red-
dish-brown ppt. w. alkaloids.

MANILA ELEMI—see Elemi

MANN'S PAPER—see Citro-Molybdc Acid Paper

Manna—U.S.P. X; B.P.C.

Dried exud. of *Fraxinus Ornus*, L. (also of *F.*
retundifolia, B.P.C.), Oleaceæ.—HABIT.: Med-
iterranean Basin; Asia Minor to Spain.—CON-
STIT.: Mannite (40%–60%, B.P.C.); manneo-
tetrose (12%–16%, B.P.C.); manninotriose

(6%–16%, B.P.C.); glucose; mucilage; fraxin.
—SOL.: 5 W., 150 A. (90%), Sq.—ACTION:
Laxat.; Demulc.; Expector.; Nutrient; Cholag.
—DOSE: 4–30 Gm. (1–8 dr.); aver. dose 15
Gm. (4 dr.).

MANNA SUGAR—see Mannite

Mannite Merck

Mannitol; Manna Sugar.— $\text{C}_6\text{H}_8(\text{OH})_6 = 182.14$.
—Hexahydric alcohol (hexit) fr. manna, the
saccharine secret. fr. *Fraxinus Ornus*.—Wh.
cryst.—SOL.: Eas. (6.5 at 16° C., B.P.C.) W.;
sltly A. (eas. in hot A., B.P.C.); insol. E.—
MELT.: 165°–166° C.—ACTION: Laxat.—USES:
Gentle lax. in constip., & recom. in diabetes.—
Techn., in test. f. glucose (Purdy).—DOSE: 15–
30 Gm. (4–8 dr.); children, 4–12 Gm. (1–3 dr.).

MANNITOL—see Mannite

Mannose Merck

$\text{C}_6\text{H}_{12}\text{O}_6 = 180.13$.—Dextrogyrate carbohy-
drate; oxidation prod. of mannit.—Wh. cryst.
powd.—SOL.: v. eas. W.—MELT.: 130° C. w.
decomp.

MARANTA—see Starch, Arrow-root

Manson's Solution—Stain for Malarial Parasites

Diss. 5 Gm. borax in 100 cc. boil. W. & add
2 Gm. methylene blue. Before use the solut.
is to be diluted until just transparent. With
the solut. red blood corpuscles are colored pale
green, the leucocyte-cell-nuclei are colored blue,
the malarial ring dark blue, & the larger plas-
modia grayish-green.

Marcasite—Mineral

Wh. Iron Pyrites.—OCCUR.: U. S.; Canada;
Bohemia; Saxony; England; Hungary.—COM-
POS.: FeS_2 (46.6% Fe).—CRYST. SYST.: Rhomb.
—LUSTER: Metallic.—COLOR: Pale brass-yel-
low.—STREAK: Grayish or brownish-black.—
CLEAV.: Us'y none.—Brittle; uneven fract.—
HARDN.: 6–6.5.—SP. GR.: 4.85–4.90.—USES:
Manuf. FeSO_4 ; fuming H_2SO_4 .

MARGOSA BARK—see Azadirach

MARIGNAC'S SALT—see Potassium Stannosul-
phate

MARIGOLD—see Calendula

MARJORAM, COMMON, or WILD—see Origanum

Marjoram—Fr. Cod.

Sweet Marjoram; Knotted Marjoram.—Whole
herb Origanum Majorana, L., Labiatæ.—
HABIT.: Southern Europe; Western Asia;
widely cultivated.—CONSTIT.: Volat. oil; tan-
nin.—ACTION: Stomachic; Condiment; Sternu-
tatory; used also in cookery.—DOSE: 2–4 Gm.
(30–60 grn.).

Marmé's Solution—Test for Alkaloids

Solut. Cadmium & Potassium Iodides.—Diss.
10 Gm. CdI_2 in a hot solut. 20 Gm. KI in 60

cc. W., & add an eq. vol. cold, satur. solut. KI.
—Develops wh. to yellow ppts in acidul. solut.
of alkaloids.

Marquis' Solution—Test f. Alkaloids

A mixt of 1 formaldehyde (40%) + 25 conc.
H₂SO₄.—Affords charact. color reactions w.
most alkaloids (see pp. 560-563).

MARSH VIOLET—see Violet

MARSHMALLOW—see Althea

MARSH-TREFOIL—see Menyanthes

Martius Yellow

Naphthol Yellow; Manchester Yellow; Naph-
thalene Yellow; Jaune d'Or.—NH₄C₁₀H₅N₂O₅,
or, NaC₁₀H₅N₂O₅ + H₂O, or, Ca(C₁₀H₅N₂O₅)₂.
—Amm., sod., or calc. salt of dinitroalphanaph-
thol.—Orange-yellow powd. or leaflets.—SOL.:
W., A.—USES: Dyeing wool golden-yellow in
acid bath; coloring lacquers, &c.

MARY-BUD—see Calendula

MARYLAND PINK—see Spigelia

MASS, BLUE—see Mercury Mass

Mass Ferrous Carbonate Merck—U.S.P. X

Vallet's Mass.—Not less than 35% FeCO₃.—
SOL.: Acids.—ACTION: Tonic.—USES: Anem.
& chlorosis.—DOSE: 0.2-0.6 Gm. (3-10 grn.);
aver. dose, 0.25 Gm. (4 grn.).

do. Merck—Vallet's Mass—Powd.

do. Merck—Blaud's Mass—Mass or
Powd.; Dark or Light Colored

USES & DOSES: As of preced'g.

MASSICOT—see Lead Oxide, Yellow

MASTICHE—see Mastic

Mastic—N.F. V; B.P.C.

Balsam Tree; Lentisk; Pistachia Galls; Mas-
tiche; Mastix.—Concrete resinous exudation
fr. Pistacia Lentiscus, L., Anacardiaceæ.—
HABIT.: Mediterranean Islands, espec. Chios
(Scio).—SOL.: Compl. in E.; alm. compl. in A.;
0.5 C., 0.5 E., part. oil turpent., B.P.C.—
CONSTIT.: Volat. oil (abt 2%, B.P.C.); bitter
principle; alpha-resin (masticic acid); beta-
resin (masticin).—ACTION: Mild Stim.; Diuret.;
Protective (in solut.).—USES: *Intern.*, as stim.
to mucous membranes (rarely used).—*Techn.*,
in tooth cements, plasters, lacquers, chewing-
gums, & incense; also f. retouching negatives.—
DOSE: 1-3 Gm. (15-45 grn.), B.P.C.; aver.
dose 2 Gm. (30 grn.), N.F.

MASTIX—see Mastic

MATA-PERRO—see Condurango

Maté—B.P.C.

Paraguay Tea; Yerba Maté; St. Bartholomew's
Tea; Jesuits' Tea.—Lvs of Ilex paraguayensis
(St. Hilaire) Hook., Aquifoliaceæ, Illicaceæ.—
HABIT.: South America (Brazil; Argentine Re-
public).—CONSTIT.: Volat. oil; caffeine (0.2%-
2%); tannin (10%-16%); a stearopten; matevi-
ridic acid; vanillin.—ACTION: Diur.; Sudorif.;
Nerve Tonic; Exhilarant; Lax.; large doses
Drastic Purgat.—USES: Headache, chron. con-

stip., & nervous affections; also in domestic use
like coffee & tea.—DOSE: 2-4 Gm. (30-60
grn.).—Fl'dextr., 2-4 cc. (30-60 M).

Matico—N.F. V; B.P.C.

Dried lvs of Piper angustifolium, Ruiz et
Pavon, Piperaceæ.—HABIT.: Peru; Bolivia;
Brazil; Mexico; Cuba.—CONSTIT.: Volat. oil
(1%-3.5%, B.P.C.); maticin (bitter principle);
artanthic acid; tannin; mucilage; resin.—
ACTION: Hemostat.; Anticatarrhal; Bitter
Tonic; Stim.; Aromat.; Astring.—USES: *In-
tern.*, in dis. of muc. membranes, cystic catarrh,
piles, dysent., gonorr., diar., hemoptysis, menor.
—*Extern.*, epistaxis & o. hemorrhages, ulcers,
&c.—DOSES: 2-8 Gm. (30-120 grn.); aver.
dose 4 Gm. (60 grn.).—Alcoh. extr., 0.3-0.6
Gm. (5-10 grn.).—Fl'dextr., 2-4 cc. (30-60
M).—Infus. (1:20, B.P.C.), 30-60 cc. (1-2 fl.
oz.).—Tr. (1:5), 2-8 cc. (30-120 M).

Matricaria—N.F. V; B.P.C.

German Chamomiles; Wild Chamomiles.—
Dried flower-heads of Matricaria Chamomilla,
L., Compositæ.—HABIT.: Europe; Western
Asia; cultiv. in U. S.—CONSTIT.: Volat. oil;
anthemic acid; anthemidine; extractive; tan-
nin.—ACTION: Diaphor.; Antispasm.; Emoll.;
Tonic; Emmenag.; Carmin.; Anthelm.—USES:
Intern., emetic in large doses. In small doses
to expel worms, or to "sweat out" colds. In
very small doses, appetizer.—*Extern.*, appl.
to indol. ulcers & sores.—DOSES: 4-15 Gm. (60-
240 grn.), us'y in infus.; aver. dose 15 Gm. (4
dr.).—Alcoh. extr., 0.12-0.5 Gm. (2-8 grn.).—
Fl'dextr., 1-8 cc. (15-120 M).

MAY APPLE—see Podophyllum

MAY BLOSSOM } —see Convallaria Flowers
MAY LILY }

MAY POPS—see Passiflora

Mayer's Alcoholic Acid Carmine

4 Gm. carmine, 15 cc. W., 30 drops HCl, & 95
cc. 85% A., w. NH₄OH added until persistent
ppt.; then filter.—USES: Staining nuclei.

do. Hemacalcium

Mayer's Hematoxylin-Alum-Calcium.—Solut.
1 Gm. hematein (or ammon. salt prepar. by
evapor. a solut. 1 Gm. hematoxylin & 1 cc.
NH₄OH in 20 cc. W.) & 1 Gm. alumin. chloride
in 600 cc. 70% alcohol, w. addit'n of 10 cc.
acetic acid & 50 Gm. CaCl₂.—USES: Staining
nuclei.

do. Hemalum

1 Gm. hematein (or its ammon. salt), 50 cc.
90% A., 50 Gm. alum, 0.5 Gm. thymol, & W.
to make 1000 cc. (U.S.P. IX).

do. Picrocarmine

Solut. 8 Gm. carmine in 100 cc. NH₄OH w.
satur. aqu. solut. picric acid added until a ppt.
forms.—USES: As of Ranvier's Picrocarmine.

do. Solution—Test for Alkaloids

Solut. Mercury & Potassium Iodide.—Solut.
13.55 Gm. HgCl₂ & 50 Gm. KI in 1000 cc. W

Gives a wh. ppt. w. most alkaloids in stly acidul. solut.; also used f. quant. estim. alkaloids. (See Winckler's [Tanret's] Reagent).

MAYER'S HEMATOXYLIN-ALUM-CALCIUM—see Mayer's Hemacalcium

MEADOW ANEMONE—see Pulsatilla

MEADOW CLOVER—see Trifolium

MEADOW CROCUS }
MEADOW SAFFRON } see Colchicum Corm

MEAT SUGAR—see Inosit

MECCA GALLS—see Nutgall

Mecke's Solution—Test for Alkaloids

A solut. of 1 selenous acid in 200 conc. H_2SO_4 .—Affords charact. color reactions w. many alkaloids (see pp. 560–563).

Meconin Merck

Anhydride of Meconinic (not Meconic) Acid; Opianyl.— $\text{C}_{10}\text{H}_{10}\text{O}_4 = 194.13$.—Neutral substce fr. opium; also found in *Hydrastis canadensis*, L.—Colorl. cryst.—SOL.: A., B., C., E., amyl alcohol; stly cold, more eas. hot, W.—MELT.: 102°C .

MECONINHYDROCOTARNINE—see Narcotine

MEDINAL = Barbitol Sodium

Méhu's Solution—Test for Albumin

Solut. 1 phenol & 1 glacial acetic acid in 2 A. (90%).—Pts albumin fr. its solut. in the presence of HNO_3 or H_2SO_4 .

MELAMPYRIT—see Dulcit

MELEGUETA PEPPER—see Amomum Melegueta

MELETIN—see Quercetin

Melilot—N.F. V

Sweet Clover; Yellow Melilot; Yellow Sweet Clover.—Dried lvs & flowering tops of *Melilotus officinalis*, Lam., Leguminosæ.—HABIT.: Europe; Asia; natur. to some extent in U. S.—CONSTIT.: Coumarin; resin; volat. oil.—ACTION: Emoll.; Loc. Anod. (in resolvent plasters & poultices).

Melissa—Fr. Cod.

Balm; Lemon Balm; Bee or Garden Balm; Honey Plant.—Lvs of *Melissa officinalis*, L., Labiata.—HABIT.: Southern Europe; Asia Minor.—CONSTIT.: Volat. oil; bitter substce; tannin; gum.—ACTION: Diaphor.; Stim.; Carmin.; Emmen.; Antispasm.; Antipyr.—USES: With o. remedies to check fever & promote perspiration.—DOSE: 1–4 Gm. (15–60 grn.).—FL'dextr., 1–8 cc. (15–120 M).

MELLIMIDE }
MELLITIMIDE } see Paramide

MELLITOSE }
MELLITRIOSE } see Raffinose

MELON TREE—see Papaw

Melubrin

Sodium Phenyltrimethylpyrazolonaminomethanesulphonate.— $\text{C}_{11}\text{H}_{11}\text{N}_2\text{O.NH.CH}_2.\text{SO}_3\text{Na} = 319.26$.—Wh., odorl., alm. tastel., cryst. powd.—SOL.: Eas. W., stly A.; aqu. solut. unstable, hence best given in substce.—ACTION: Antipyr.; Analges.—USES: Sciatica & o. neuralgias, acute rheum., & in febrile affections.—DOSE: 0.5–2 Gm. (8–30 grn.); up to 10 Gm. (150 grn.) p.d. may be given; also intraven., 2.5–3 Gm. (38–45 grn.) 3 t.p.d. in 50% steril. solut., & the yellow color developed by steril. may be disregarded.

Menthene

$\text{C}_{10}\text{H}_{18} = 138.19$.—Fr. menthol by dehydration. (Not the terpene $[\text{C}_{10}\text{H}_{16}]$ formerly called "menthen," or "menthene," ident. w. pinene).—Clear, colorl. liq.; pleas. odor.—SOL.: A., B., E.—BOIL.: Abt 168°C .—SP. GR.: 0.810 at 15° .—See also Pinene.

"MENTHENE"—see Pinene, Dextrogyrate

Menthol Merck—U.S.P. X—Cryst. or Recrystallized

Hexahydrothymol; Methylpropylphenyl Hexahydride; Peppermint Camphor.— $\text{C}_{10}\text{H}_{19}\text{OH} = 156.21$.—Secondary A. (stearopten) fr. oil of peppermint or o. mint oils.—Colorl. cryst.; peppermint taste & odor.—SOL.: Eas. A., C., E., petrol. E., glac. acetic acid, liq. petrolatum, & oils, stly in W., U.S.P.—MELT.: 42° – 44°C .—U.S.P.—BOIL.: 212°C .—SP. GR.: Abt 0.890 at 15.5°C .—ACTION: Analg.; Anesth.; Antisep.; Stim.—USES: Intern., intractable vomit'g of cholera, acute & chron. asthma, dyspnea, vomit. of acute dysent., & hyperchlorhydria; gastric pain in dyspep., in dyspep. of chlorosis, phth., & neurasth., gastric crises in tabes, & in vomit'g of pregnancy.—Extern., toothache, headache, neural., insect bites, & prurit. By brush, tampon, or atomizer in hay fever, nasal diphth., catarrh, asthma, & chronic bronch.; also screw worm.—Techn., in liqueurs, confectionery, perfumery.—DOSE: 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.); aver. dose, 0.06 Gm. (1 grn.). In vomit'g of cholera, 0.01 Gm. ($\frac{1}{2}$ grn.) frequently; in gastric pain, dyspep., tabes, & vomit. of pregn., 0.06–0.2 Gm. (1–3 grn.) p.d., beginning w. 0.02 Gm. ($\frac{1}{2}$ grn.); in phth., 1–1.5 Gm. 15–23 grn.) single, & 6 Gm. (90 grn.) p.d.—APPL.: Tampons, 1 in 5 of oil; 1:10 oint. in pruritus ani & vulvæ. In screw worm, 20% solut. sprayed into nose after appl. H_2O_2 . For toothache, put a crystal into cavity.—VETER. MED., as antizymotic f. dogs, 0.1–1 Gm. ($\frac{1}{2}$ –15 grn.).—INCOMP.: Butyl-chloral hydrate, camphor, phenol, chloral hydrate, CrO_3 , exalgine, betanaphthol, resorcinol. or thymol; KMnO_4 ; pyrogallol.

Menthol Camphorated—N.F. V

Campho-Menthol.—47.5% ea. of camphor & menthol & 5% A.

MENTHOL ETHYLGLYCOLATE—see Coryfin

Menthol-Iodol

Iodol w. 1% menthol.—ACTION: Antisep.—USES: Rhino-laryngology & dentistry; locally as dusting powd.

MENTHYL VALERATE—see Validol

Menyanthes—N.F. IV; Fr. Cod.

Buckbean; Bogbean; Marsh-trefoil; Water-shamrock.—Dried lvs of *Menyanthes trifoliata*, L., Gentianaceæ; (the root also is used).—HABIT.: Europe; Asia; N. America south to Penn., Minn., & Calif.—CONSTIT.: Menyanthin.—ACTION: Bitter Tonic; Astring.; Purgat.; Emet.; Emmen.—DOSE: *Lvs* or *Root*: Tonic, 0.6–1.6 Gm. (10–25 grn.) in powd. or fl'dextr.; aver. dose 1 Gm. (15 grn.).—*Cath.*, 4 Gm. (60 grn.).

MERASIN—see Artosin

MERBAPHEN—see Novasurol

Mercedan

Mercury Paranucleinate.—The sod. salt is mkt'd in 25% solut. ea. cc. = 0.025 Gm. Hg; the tannate is mkt'd in tablets of 0.6 Gm. = 0.01 Gm. Hg.—ACTION: Antisyphilitic.—DOSES: Of solut., 1 cc. (15 M) daily or ev. other day; *tabl.*, 1–3 t.p.d.

Merciol

Colloidal mercuric iodide (20% HgI₂).—USES: Syphilis.—DOSE: 0.015–0.12 Gm. ($\frac{1}{4}$ –2 grn.) either per os or by intraven. or intramusc. inj.

MERCURAMMONIUM CHLORIDE—see Mercury Ammoniated

Mercurial Oil

Gray Oil.—40%–50% metallic Hg in v. finely divided state in an oil base, f. intramusc. inj. (this, however, is considered by some to be both inefficient & dangerous).—USES: Syphilis.—DOSE: 0.06 cc. (1 M) to begin with, & incr. to 0.12 cc. (2 M), 1–2 t.p. week.

Mercurialis—Fr. Cod.

Mercury Herb; French Mercury; Girl's Mercury.—Herb of *Mercurialis annua*, L., Euphorbiaceæ.—HABIT.: Europe; advent. in U. S.—CONSTIT.: Mercurealine (ident. w. monomethylamine); trimethylamine.—ACTION: Purg.; Diuret.; Emmen.; Antisyphil.; Emoll.—USES: Amenor., dysmenor., scrofula, & syphilitic affect.—DOSE: Fl'dextr., 0.3–2 cc. (5–30 M).

Mercurialized Serum

A solut. of corrosive sublimate in normal horse serum diluted w. physiol. solut. NaCl.—USES: Syph., partic. of cerebrospinal type.—DOSE: *Intraspinaly*, 30 cc. (1 fl. oz.) of a solut., the dose cont'g the equivalent of 0.0013 Gm. ($\frac{1}{50}$ grn.) HgCl₂; & increased, when tolerance is established, to double the dose, using 30 cc. (1 fl. oz.) of a double-strength solut.—*Intraven.*, 2 cc. (30 M) solut., the dose cont'g the equivalent of 0.0055 Gm. ($\frac{1}{11}$ grn.) mercury bichloride.

MERCURIC ALANIN—see Mercury α -Aminopropionate

MERCURIC CHLORIDE—see Mercury Bichloride

MERCURIC CHLOROIODIDE—see Mercury Iodo-chloride

MERCURIC-CUPROUS IODIDE—see Mercury & Copper Iodide

MERCURIO-VEGETAL—see Manaca

MERCURIUS VITÆ—see Antimony Oxychloride

Mercurochrome-220 Soluble

Disodium salt of dibrom-oxymercury-fluoresceine.— $\text{NaOOC} \cdot \text{C}_6\text{H}_4 \cdot \text{OC} : \text{C}_6\text{H}_2\text{Br} : \text{O} \cdot \text{C}_6\text{HBr}$ —(ONa)(HgOH).3H₂O = 804.65.—Iridescent, odorl., green scales or granules; permanent in air; 23%–24% Hg.—SOL.: Freely in W.; 65 A.; insol. C., E.—ACTION: Strong & rapidly acting Germicide.—USES: Cystitis, urethritis, chancroidal ulcerations, ophthalmia neonatorum, otitis med.—APPL.: In kidney-pelvis infect. 1% solut. introduced into pelvis by catheter & retained 5 min.; in vesical affect., 30 cc. (1 fl. oz.) 1% solut. inj. & retained 1 hr or longer, ev. day or ev. o. day; in anterior gonorrh. 1% solut. inj. into urethra & retained 5 min., & in posterior cases retained 1 hr or longer; in chancroidal ulcerations, 1% solut. as moist dressing, or as 5% starch paste, or 5% oint.; in ophthal. neonat., a 2.5% solut. instilled freely into each eye sev'l t.p.d.; also inst. of tinct. iodine f. first aid.

Mercuroiodohemol

Hemol w. 12.35% Hg & 28.6% I in organic comb'n.—Brown powd.—ACTION: Antisyph.; Tonic.—USES: Chiefly in syph., partic. when accompanied by scrofula or anemic conditions. Develops fully the mercurial effect without the unpleasant by-effects us'y caused by mercury.—DOSE: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) 4–6 t.p.d.—*Subcut.*, a mixt. cont'g 6%–10% of the remedy suspended in a 1%–2% gelatin solut. w. 0.6% NaCl added, the mixt. being warmed bef. injecting.

MercuroI

Mercury Nucleinate.—Abt 20% Hg.—Light brownish-wh. powd.—SOL.: W.; insol. A.—ACTION: Antisep.; Astring.; Bactericide.—USES: Chron. conjunctivitis, suppurative otitis media, ophthalmia neonatorum, infect. inflammations, urethritis, gonorr., &c.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).—APPL.: Gonorr., 0.5%–3% solut.; ophthalm., 3%–5% solut.; otitis, 5%–10% solut.—CAUT.: Solut. should be freshly prepared.

Mercurophen

Sodium Oxymercury-orthonitrophenolate; No. 99.—Approx. $\text{C}_6\text{H}_3\text{ONa} \cdot \text{NO}_2 \cdot \text{HgOH}$ = 377.67.—Brick-red, odorl. powd.—SOL.: W.—ACTION: Antisep.—Stated to be more active than HgCl₂.

Mercurosol

Disodium Hydroxymercurysalicyloxyacetate.—($\text{HOHg} \cdot \text{Na} \cdot \text{OOC} \cdot \text{C}_6\text{H}_3\text{OCH}_2\text{COONa}$ = 456.69.—Wh. powd.; 43%–43.8% Hg.—SOL.: Abt 10 W.; insol. organic solvents.—USES:

Syph. & o. diseases, either alone or w. arsphenamine, by intraven. or intramusc. inj. (a special form is supplied f. each such inj.). The remedy is stated to be only $\frac{1}{7}$ as toxic as HgCl_2 .—DOSE: *Intramusc.*, 0.05 Gm. ($\frac{3}{4}$ grn.) diss. in 5 cc. (75 M) water ev. 4–5 days f. 10–12 doses; *intraven.*, 0.1 Gm. ($1\frac{1}{2}$ grn.) diss. in 5 cc. (75 M) W. ev. 2–3 days f. 10–12 doses.

MERCURIOS CHLORIDE—see Calomel; Mercury Chloride Mercurous

MERCURIOS DIHODOPARAPHENOLSULPHONATE—see Sozoiodole-Mercury

MERCURIOS SUBNITRATE—see Mercury Nitrate, Mercurous, Basic

Mercury Merck—Reagent

Hg = 200.60.—Silver-wh., liq. metal.—SP. GR.: 13.59—BOIL.: Abt 357°C .—SOLIDIF.: -38.85°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.002%
Insol. Matter.....	None
Foreign Metals.....	0.000%

USES: Determ. N by Kjeldahl method; prepar'g Hg soluts f. reagent purposes (e.g., Millon's reag. f. albumin); cathode in electroanalysis.

Mercury Merck—C. P.

Quicksilver.—Hg = 200.60.—Mobile, heavy, silvery, lustr. liq.—SOL.: HNO_3 ; insol. HCl .—BOIL.: Abt 357°C .—SOLIDIF.: -38.85°C .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Insol. Matter.....	None
Foreign Metals.....	Traces

USES: As of the Reagent, above.

do. Merck—Redistilled—U.S.P. X

DESCRIPT.: As preced'g.—SOL.: HNO_3 ; hot H_2SO_4 ; insol. conc. HCl .—SP. GR.: Abt 13.5 at 25°C .—BOIL.: Abt 358°C .—SOLIDIF.: Abt -40°C .—USES: *Intern.*, in form of salts, also as mass of mercury, mercury w. chalk; specific in syph.—*Extern.*, as mercurial ointment.—*Pharm.*, prepar. mercurial oint., mercury w. chalk, &c.—*Techn.*, barometers, thermometers, hydrometers, pyrometers; in gas analysis & physical & chemical experiments; in mercury arc lamp, produc'g ultra-violet rays, manuf. mercury salts; also in dentistry.—*ANTID.*: All mercurial salts: Albumin, milk, powd. iron; mixt. of magnesia 15, expressed oil almond 20, acacia 20, water 120, in tablesp. doses ev. $\frac{1}{2}$ hr; opium.—*CAUT.*: Mercuric salts are mostly poisonous, some extremely so. Mercurous salts are less poisonous, some are only very slightly so.

do. Merck—Technical, Distilled

USES: Manuf. mirrors, extract's gold & silver fr. ores, electroplating, making amalgams, explosives & electrotechn.

Mercury Acetate Merck—Mercuric—C.P.

$\text{Hg}(\text{C}_2\text{H}_3\text{O}_2)_2 = 318.67$.—Wh., cryst. powd.; sensit. to light.—SOL.: Eas. W.—*CAUT.*: Keep well stoppered & in the dark.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.010%
Mercurous Hg.....	Trace

USES: *Chem.*, as test f. wine coloring matter & turpentine oil (Grimaldi).—*Medic.*, *intern.* as antisyphilitic; *extern.* in freckles.—DOSE: 0.006–0.02 Gm. ($\frac{1}{10}$ – $\frac{1}{3}$ grn.).—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.—APPL.: 1%–1.5% solut. in rose water f. freckles.—*CAUT.*: Keep well stoppered & in the dark.

do. Merck—Mercurous

$\text{HgC}_2\text{H}_3\text{O}_2 = 259.63$.—Wh., lustr. leaflets; sensit. to light.—SOL.: Sltly in cold, decomp. by boil., W.; insol. A., E.—ACTION: Antisyph.—DOSE: 0.006–0.06 Gm. ($\frac{1}{10}$ –1 grn.) single; 0.3 Gm. (5 grn.) p.d.—APPL.: In 4%–8% oint.—*CAUT.*: Keep well stoppered, fr. light (darkens).

Mercury Albuminated

A milk-sugar trituration cont'g Hg in quant. equivalent to a content of 0.4% HgCl_2 .—Wh. to grayish-wh. powd.—SOL.: W. w. turbid.—ACTION: Antiseptic.—USES: *Extern.*, w. milk-sugar (1.5:100) as antisept. protective dress. f. wounds.—*CAUT.*: Soluts. do not keep well.

MERCURY AMIDOACETATE—see Mercury Glycollate, 1% Solut.

Mercury α -Aminopropionate

Mercuric Alanin.— $\text{Hg}(\text{CH}_3\text{CH}[\text{NH}_2]\text{COO})_2 = 376.74$.—Wh., cryst. powd.—SOL.: 3 W.—ACTION: Alter.; Antisyph.—USES: Hypoderm. or per os in syph.—DOSE: 0.002–0.005 Gm. ($\frac{1}{30}$ – $\frac{1}{12}$ grn.) sev'l t.p.d. in pill.—*Subcut.*, 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.) in 1 cc. (15 M) W. p. day; children, 0.002–0.005 Gm. ($\frac{1}{30}$ – $\frac{1}{12}$ grn.) p. day.

Mercury Ammoniated Merck—U.S.P. X

Ammoniated Mercury Chloride; White Precipitate; Amido-mercuric, or Mercury Ammonium, Chloride.— $\text{HgNH}_2\text{Cl} = 252.08$; cont's not less than 78%, or over 80%, Hg.—Made by pouring solut. HgCl_2 into excess of NH_4OH .—Wh. powd.; earthy, styptic, metal. taste.—SOL.: Warm HCl , HNO_3 , $\text{HC}_2\text{H}_3\text{O}_2$; cold solut. amm. carbonate or $\text{Na}_2\text{S}_2\text{O}_3$; insol. W., A.—ACTION: Antisept.; Antisyph., Alter.—USES: *Intern.*, formerly in syph.—*Extern.*, as 1:10 oint. in syph. erup. & sores; iritis (1%–2% oint.); skin dis., &c.; now rarely used internally.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—In VETER. MED. as 1%–2% oint. in mange, herpes, chron. skin diseases, pediculosis, etc.—*CAUT.*: Poison! French "White Precipitate" (*Précipité Blanc*) is calomel. Do not confound the two when French prescriptions are to be compounded.

do. Merck—Powd.

MERCURY *p*-ANILINARSINATE, or ARSANILATE—see Mercury Atoxylate

Mercury Arsenate Merck—Mercuric

HgHAsO₄ = 340.57. — Yellow powd.—SOL.: HCl; diffic. HNO₃; insol. W.—USES: Syph. dis.—*Techn.*, manuf. waterproof paints.

Mercury Arsenite Merck—Mercurous

Variable compos'n.—Brownish powd.—SOL.: HNO₃; insol. W.

Mercury Asparaginate

Asparagin-mercury.—Hg(C₄H₇N₂O₃)₂ = 462.78. —Colorl. need.—SOL.: Eas. W.—ACTION: Alter.; Antisep.—USES: Syph.; said to produce no local disturbance & to be wholly eliminated fr. system in 24 hrs.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) p.d.; *hypoderm.*, 0.5 cc. (8 M) of 1% solut. p.d.

Mercury Atoxylate

Asiphyl; Aspirochyl; Mercury Paramidophenylarsinate, or Arsanilate, or Para-anilinararsinate.—Hg(NH₂.C₆H₄.AsO.OH.O)₂ = 632.71.—Wh. powd.; abt 32% Hg; abt 24% As.—Alm. insol. W.—USES: In syph.—DOSE: 0.05–0.01 Gm. ($\frac{3}{4}$ –1½ grn.) in 10% olive oil suspens. by *intramusc.* inj. twice weekly, till 1 Gm. (15 grn.) given altogether.

Mercury Benzoate Merck—Mercuric

Hg(C₇H₅O₂)₂ + H₂O = 460.77. — Wh. cryst. powd.; sensit. to light.—SOL.: Sltly W., A.; clearly & eas. in solut. NaCl, & in ammon. benzoate.—ACTION: Alter.; Antisep.—USES: Syph., & skin dis.—DOSE: 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.).—INJ.: *hypoderm.*, 1 cc. (15 M) of solut. of 1 merc. benz., 1 NaCl, & 100 W., p.d.; or 1 merc. benz., 5 ammon. benz., & 100 W., 1–2 cc. (15–30 M), grad. incr. to 5 cc. (75 M) p.d.; or 0.06 Gm. (1 grn.) in 10% suspens. in liq. petrolatum.—APPL.: To syphil. sores, 2–6:1000 solut.—CAUT.: Keep in dark amber bot.

do. Merck—Mercurous

HgC₇H₅O₂ = 321.68.—Wh., cryst. powd.—Insol. W., A.—CAUT.: Keep in dark amber bot.

MERCURY BETANAPHTHOL—see Mercury Naphtholate, Mercuric

Mercury Bichloride Merck—Reagent

Mercuric Chloride; Corrosive Sublimate.—HgCl₂ = 271.52.—Wh., translucent cryst.—SOL.: Abt 16 W., abt 3 A.; also in E.

MAXIMUM OF IMPURITIES

Non-Vol. Matter or Substes	
not Pptd by H ₂ S.	0.010%
Substes Insol. in Ether	0.000%
Arsenic (As)	0.0001%
Iron (Fe)	0.001%

USES: Detect'g & determ'g reducers (e.g., Sn[ous] salts, Fe, formic acid, formaldehyde, etc.), & sm. quant. of As; detect'g gelatin, ethyl sulphide, NH₃, methenamine, S & P comp'ds in acetylene; determ'g Fe in reduced Fe; fixing in microscopy; prepar'g various mercurial reagents; also as reag. f. albumin (Amann; Bouchardat; Flückiger; Fürbringer; Jolles; Mayer; Polacci; Reichard; Spiegler; Zou-

chlos), aldehyde (Auld; Crismer), methyl alcohol (Aweng), Na₂CO₃ in NaHCO₃ (Biltz), NH₃ (Bohlig; Jaworowski), determ. I-No. (Borde; Hübl), adrenaline (Comessatti; Ewins; Mühlmann), alkalies (Dobbin), cocaine & eucaine (Eigel), formaldehyde (Feder), As (Flückiger; Lochmann), atropine & hyoscyamine (Gerrard), alkaloids (Heikel; Mayer; Planta; Schlagdenhauffen; Tanret), urethane (Jacquemin), colchicine (Johannson), glucose (Johnson), acetylene (Keppeler), pyridine (Kinzel; Schweissinger), creatinine (Kolisch), spermat. liq. (Larass), iridol (Nickel), H₃PO₃ (Pagel), dulcin (Ruggeri), glucosides (Schlagdenhauffen), urobilin (Schmidt; Triboulet), alkali in soap (Stein), xanthine (Strohmeyer), & strychnine (Winckler).

Mercury Bichloride Merck—C.P.—Cryst., or Powd.

Mercuric Chloride; Corrosive Sublimate; Mercury Perchloride; Corrosive Mercury Chloride.—HgCl₂ = 271.52.—Wh. transluc. cryst., or wh. powd.; acrid, persistent, metal. taste.—SOL.: Abt 16 W., abt 3 A.; also in E.

MAXIMUM OF IMPURITIES

Non-Vol. Matter or Substes	
not Pptd by H ₂ S.	0.050%
Substes Insol. in Ether	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

DESCRIPTION: As preced'g.—SOL.: 13.5 W., 3.8 A., abt 12 G., 22 E., at 25° C., 2.1 boil. W., 1.6. boil. A., U.S.P.; slowly in 2 G.—MELT.: Abt 265° C.—SUBL.: Abt 300° C.—ACTION: Alter.; Tonic; Antisep.; Germicide; Caustic.—USES: *Intern.*, syph., acute & chronic rheum., malaria, skin dis., & diarrh. of putrefactive type.—*Extern.*, in collodion as caustic f. nevi, &c.; in alc. solut. f. ringworm; in W. as collyrium in vener. ophthalmia, in leprosy, ulcers, & var. skin dis., antisep. dressings, in surg. operat., in diphth., f. disinfect., &c.—*Techn.* preserv. wood (kyanizing) & anatomical specimens, also embalming; disinfect.; browning & etching steel & iron; intensifier in photogr.; wh. reserve in fabric printing; tanning leather; electroplating Al; depolarizer f. dry batteries; freeing gold fr. lead; magic photograms; mordant f. rabbit- & beaver-furs in hat-making; stain'g wood & vegetable ivory pink; manuf. ink f. mercurography; treating seed potatoes; catalyzer.—DOSE: 0.001–0.008 Gm. ($\frac{1}{60}$ – $\frac{1}{6}$ grn.); aver. dose 0.004 Gm. ($\frac{1}{15}$ grn.).—INJ., *hypoderm.*: HgCl₂ 0.1–0.3 Gm. (1½–5 grn.), NaCl 1 Gm. (15 grn.), & W. 100 cc. (1,550 M), of which solut. inject 0.5–1 cc. (8–15 M); *intraven.* in malaria, 0.015 Gm. ($\frac{1}{4}$ grn.) in 20 cc. (5 fl. dr.) physiol. solut. NaCl once p. week; in acute rheum., 0.003 Gm. ($\frac{1}{20}$ grn.) on 3 successive days, & 0.004 Gm. ($\frac{1}{15}$ grn.) on alternate days till 6–7 inject. given.—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single, & 0.06 Gm. (1 grn.) p.d.—APPL.: As wash, 1:1,000–5,000 solut.—In VETER. MED. as caustic in torpid ulcers, picking up a nail, fistulas of hoof, neoplasms,

etc.—**ANTID.**: ZnSO_4 , emetics, stomach siphon, egg white, milk in abundance, chalk mixture, castor oil, table salt, reduced iron or iron filings. Wh. of egg & milk 2 to 3 t.p.d. f. a week; 0.3 Gm. (5 grn.) sod. phosphate for every 0.06 Gm. (1 grn.) HgCl_2 swallowed, & 0.6 Gm. (10 grn.) sod. acetate ev. hr. w. a lax. ev. morning. —**INCOMP.**: Reduced iron, formic acid, hypochlorites, albumin, alkalies, carbonates, alkaloidal salts, NH_3 , antimonous & arsenous salts, bromides, borax, salts of Zn, Pb, Cu & Fe; gelatin, hypophosphites or hypophosphorous acid; infusions cinchona, Colombo, oak bark, & senna; lime water, phosphates, AgNO_3 , K_2SO_4 , Na_2SO_4 , sulphides, tannic acid, vegetable astringents, zinc salts.—**CAUT.**: Exceedingly poisonous!

do. —Tablets, accord. to Prof. von Esrmarch

Mktd in two strengths—(1) 5 Gm. (75 grn.) ea. of HgCl_2 & NaCl ; (2) 10 Gm. (150 grn.) ea. of HgCl_2 & NaCl . These tablets are purposely colored a lighter red than the usual small sublimite tablets in order that fabrics immersed in soluts may not be ruined by the spots. The tablets are useful f. disinf. on the large scale.

Mercury Bichloride Carbamidated

Mercury-urea Chloride. — $\text{HgCl}_2 \cdot \text{CONH}_2 = 315.55$.—Colorl. cryst.—**SOL.**: Hot A.—**ACTION**: Alter.; Antisept.—**USES**: *Extern.*, syph., scrof., & chronic rheum.—**DOSE**: Subcut., 0.5–1 cc. (8–15 M) of 1.22% aqu. solut. (= 0.01 Gm. [$\frac{1}{2}$ grn.] corros. subl.).

MERCURY BICHLORIDE, PEPTONIZED—see Mercury, Peptonized, Mercuric

MERCURY BICHROMATE—see Mercury Dichromate, Precipitated

MERCURY BINIODIDE—see Mercury Iodide, Red

Mercury Bisulphate Merck—C.P.

Normal or Neutral Mercuric Sulphate; Mercury Persulphate. — $\text{HgSO}_4 = 296.66$. — Wh., cryst. powd.—**SOL.**: HCl , hot dil. H_2SO_4 & conc. solut. NaCl ; decomp. by W. (yellow oxy sulphate formed.)

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.10%
Chloride (Cl).....	0.003%
Nitrate (N_2O_5).....	0.010%
Mercurous Hg.....	0.0%

USES: In chem. industry f. making HgCl_2 & HgCl ; also alone or w. KHSO_4 f. filling galvanic batteries; as catalyst; in tests f. wine colors (Girard), veronal (Pégurier), & cystin (Riza).

do. Merck

DESCRIPT. & **SOL.**: As preced'g.—**USES**: Filling galvanic batteries; w. NaCl f. extract. gold & silver fr. roasted pyrites.—**MAX. D.**: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.05 Gm. ($\frac{3}{4}$ grn.) p.d.

Mercury Bitartrate—Mercurous

$\text{HgHC}_4\text{H}_4\text{O}_6 = 349.66$.—Wh., cryst. powd.—**Insol.** W.

Mercury Bromide Merck—Mercuric—C.P.

Mercury Dibromide.— $\text{HgBr}_2 = 360.44$. — Silvery, lustr. scales; sensit. to light.—**SOL.**: Abt 200 cold, 25 boil., W.; eas. A., & E.—**MELT.**: 235°C .

MAXIMUM OF IMPURITIES

Insol. Matter.....	Trace
Nonvol. Matter.....	0.020%
Arsenic (As).....	0.0001%

USES: *Chem.*, detect. & determ. sm. quant. of As; in solut. w. BaCl_2 f. separ. minerals (Clerici).—*Medic.* as alternative & antisymph. like mercuric chloride.—*Extern.*, in 0.25:30 oint.—**DOSE**: 0.002–0.015 Gm. ($\frac{1}{30}$ – $\frac{1}{4}$ grn.). *Intramusc.*: 1 cc. (15 M) of a 1% solut. w. 1% sod. bromide.—*For subcut. inj.*, a solut. 1.8 Gm. HgBr_2 , 1.4 Gm. NaBr , & W. to make 100 cc. useful, & inj. is stated to be painless; 1 cc. solut. = 0.01 Gm. metal. Hg.—**CAUT.** Keep in the dark.

do. Merck—Mercurous

$\text{HgBr} = 280.52$.—Wh. powd.—**Insol.** W., A., E.—**MELT.**: 340° – 350°C .—**ACTION**: Alter.; Antisept.—**USES**: Mild mercurial, greatly resemb. calomel in action.—**DOSE**: 0.06 Gm. (1 grn.) in divided doses, grad. incr. to 0.5 Gm. (8 grn.) p.d.—**CAUT.**: Keep in the dark.

Mercury Cacodylate—Mercuric

$\text{Hg}[(\text{CH}_3)_2\text{AsO}_2]_2 = 474.64$.—Wh., hygroscopic, unstable, cryst. powd.—**SOL.**: W.—**USES**: Syph.—**DOSE**: 0.03 Gm. ($\frac{1}{2}$ grn.) p.d. in 2.5%–5% sol. by intramusc. inj.

MERCURY CARBOLATE—see Mercury Phenate

Mercury Chlorate—Mercurous

$\text{Hg}(\text{ClO}_3) = 284.06$.—Wh. cryst.—**SOL.**: Eas. W., A.—**Decomp.** abt 250°C .—**CAUT.**: Keep in the dark.

Mercury Chloride Merck—Mercurous—Re-agent

Calomel; Mild Mercurous Chloride.— $\text{HgCl} = 236.06$.—Wh., odorl. tastel. heavy powd.—**Insol.** W., A., E.—**SUBL.**: Abt. 383°C , without melt.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.02%
Mercury Bichloride (HgCl_2)...	0.00%
Sulphate (SO_3).....	0.02%

Mercury Chloride Merck—Mercurous—C.P.

Calomel; Mild Mercury Chloride; Mercury Subchloride, or Monochloride, or Protochloride.— $\text{HgCl} = 236.06$.—**Impalp.**, dense, wh., odorl., tastel., light-sensit., heavy powd.—**Insol.** W., A. E.—**SUBL.**: Abt 383°C , without melt.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.03%
Mercury Bichloride (HgCl_2)...	0.00%
Sulphate (SO_3).....	0.03%

USES: Detect'g cocaine (Flückiger; Schell), glucose (Jaworowski), pilocarpine (Lenz), $\text{Na}_2\text{S}_2\text{O}_3$ (Musset), SCN (Polacci), & free alkali (Stoss); I; also in electrolysis as the calomel electrode.—**CAUT.**: Keep in the dark.

do. Merck—Mercurous—U.S.P. X

DESCRIPT., SOL., etc.: As preceding.—ACTION: Cath.; Alter.; Diuret.; Antisep.; Anthelm.—USES: *Intern.*, constip., incubation period of infectious dis., cholera, dysent., cardiac dropsy, pleurisy, malign. fever, malaria, syph., gout, worms, cholelithiasis, mitral insufficiency, eclampsia gravidarum.—*Extern.*, smallpox pitting, pruritus, diphth., syph. ulcers, myiasis, membr. croup (by fumigation), condylomata, warts. Effect of dose not in proport. to size. Small, well-trituated doses better than large, coarse ones. Larger dose in proport. to age of children than w. o. medic.—*Techn.*, used in dark-green Bengal lights, calomel paper, mixed w. gold in paint. on porcelain.—DOSE: *Cath.*, 0.12–1 Gm. (2–15 grn.); aver. dose as *lax.*, 0.15 Gm. ($2\frac{1}{2}$ grn.); *antisiph.*, 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.); *diuret.*, 0.12–0.2 Gm. (2–3 grn.) 3 t.p.d.; *intern. antiseph.*, 0.008–0.015 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.); *cholag.*, 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.).—*Subcut.*, in syph., 0.5–1 cc. (8–15 M) of a 10% oily suspens.—APPL.: 1:5 oint. in pruritus vulvæ, & pruritus ani fr. hemorrhoids.—VETER. MED., as lax.; for horses, 2–8 Gm. (30–120 grn.); *catile*, 1–5 Gm. (15–75 grn.); *sheep & goats*, 0.25–0.5 Gm. (4–8 grn.); *calves & colts*, 0.4–1 Gm. (6–15 grn.); *dogs*, 0.03–0.1 Gm. ($\frac{1}{2}$ – $1\frac{1}{2}$ grn.); *pigs*, 0.5–2 Gm. (8–30 grn.).—INCOMP.: H_2SO_3 , HCN, alkali salts of Cl, Br, I; sulphates, sulphites, carbonates, hydroxides, organic acids, lime-water, acacia, airol, alkalies, ammonia, golden antimony sulphide, cocaine, cyanides; Pb, Ag, & Cu salts; H_2O_2 , I, iodoform, soap, sulphides.—CAUT.: Keep in the dark; becomes yellow to gray on expos. to light.

do. Merck—Mercurous—Precip.—U.S.P. X

Précipité Blanc of the Fr. Codex.—USES: More active than sublimed calomel. Usually given in doses $\frac{1}{2}$ those of the latter.

MERCURY CHLORIDE, AMMONIATED—see Mercury, Ammoniated

Mercury Chromate—Mercurous

Variable compos'n; approx. $\text{Hg}_2\text{CrO}_4 = 517.20$.—Brick-red powd.—SOL.: HNO_3 ; insol. W.—USES: *Techn.*, green coloring f. porcelain & chinaware.

Mercury Citrate—Mercurous

$\text{Hg}_3(\text{COO})_3 \cdot \text{CH}_2 \cdot \text{COH} \cdot \text{CH}_2 = 790.87$.—Wh. powd.—SOL.: v. stlty W.

Mercury, Colloidal

Dark-brown, clear liq.; stlty opalescent by reflected light; faint alkaline reaction.—1% colloidal Hg.—USES: *Intern.*, syph.; acute gastritis.—*Extern.*, in ringworm of scalp, alopecia areata, diphth.; oral sepsis as mouth wash, tonsillar patches.—DOSE: Of 1% solut., 1.3–2 cc. (20–30 M) adults; f. infants, 0.2 cc. (3 M).—As enema, 10 cc. ($2\frac{1}{2}$ fl. dr.) of 0.1%–0.4% solut. inj. high up into rectum. With stronger solut. morphine is added to counteract tenesmus otherwise likely to occur.—CAUT.: Keeps well if not exposed to considerable variations in temp., or too bright a light.

Mercury Cyanide Merck—Mercuric—C.P.—Powd.

$\text{Hg}(\text{CN})_2 = 252.63$.—Wh. or colorl. cryst. or powd.; darkened by light.—SOL.: Abt 13 W., abt 15 A.; also in G.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.030%
Chloride (Cl).....	0.00%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%

USES: Test'g f. Pd, & f. quinine (Eiloart), albumin (Gouver), glucose (Knapp), mercaptans (Nencki), & bilirubin (Trapani); also in Flückiger's reagent.—CAUT.: Keep in the dark.

do. Merck—Mercuric—Cryst.

DESCRIPT. & SOL.: As of the preceding.—ACTION: Alter.; Antisymphil.; Antiseph.; Tonic, &c.—USES: *Intern.*, inst. of HgCl_2 , as much less irrit. Recom. in diphth. & membranous croup & in syph.—*Extern.*, as gargle in diphth. & croup, 1:10,000 solut.; in fibrinous rhinitis, tampons impregn. w. 0.04% aqu. solut.; 1%–2% solut. as paint f. syphil. sores espec. of tongue & throat; 1:500 solut. in ophthalm. neonat.; & as applic. in ophthalm. & to wounds in 1:1000 solut.—*Techn.*, manuf. CN gas (by heat.), photog.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) in solut.—INJ.: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) hypoderm., intraven., or intramusc.; in syph. eye dis. 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.) incr. to 0.005 Gm. ($\frac{1}{12}$ grn.) p.d., & in syph., 1 cc. (15 M) 1% solut. ev. o. day, intravenously.—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single, & 0.06 Gm. (1 grn.) p.d.—Used also in 1:1000 solut. to disinfect surgic. instruments.—ANTID.: 0.1% solut. sulphurated potassa intern.; also as of HgCl_2 (*q.v.*) poison.—CAUT.: Very poisonous! Keep in dark amber bottle.

MERCURY DIAMMONIUM CHLORIDE—see Mercury & Ammonium Bichloride

MERCURY DIBROMIDE—see Mercury Bromide, Mercuric

Mercury Dichromate

Mercury Bichromate.— $\text{HgCr}_2\text{O}_7 = 416.60$.—Heavy, red, cryst. powd.—SOL.: Acids; insol. W.

Mercury Diiodosalicylate—Mercuric

$\text{Hg}(\text{C}_7\text{H}_3\text{I}_2\text{O}_3)_2 = 978.40$.—Reddish-wh., fine powd.; 20% Hg & 52% I.—SOL.: Stlty A.—USES: As o. insol. Hg comp'ds in 10% oily suspens. w. liquid petrolatum, f. intramuscular injection.

MERCURY ETHYLENEDIAMINESULPHATE—see Sublimine

Mercury Ferrocyanide—Mercuric

$\text{Hg}_2\text{Fe}(\text{CN})_6 = 613.12$.—Brown powd.—Insol. W., A., & acids.

Mercury Formamide—1% & 2% Solutions

Soluts. of 1% & 2% respectively of HgO in formamide.—ACTION: Antisymph.—USES: Hy-

poderm. in syph.; better adapted f. use than HgCl_2 , because inject. less painful.—DOSE: 1 cc. (15 M) of 1% solut. (= 0.01 Gm. [$\frac{1}{2}$ grn.] HgO) ev. 2nd day. The 2% solut. is correspondingly diluted for use.

Mercury Gallate—Mercuric

Variable compos'n; approx. $\text{Hg}(\text{C}_6\text{H}_2[\text{OH}]_3\text{CO}_2)_2 = 538.75$ (?).—Grayish-green, amorph. powd.; 37% Hg.—SOL.: Alkalies; insol. W., A.—ACTION: Alter.; Antisyph.—USES: *Intern.*, syph.—*Extern.*, chancre, ulcers, etc. Said not to produce salivation or stomatitis.—DOSE: single, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.); 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) daily.—CAUT.: Keep dark.

Mercury Glycocolate—1% Solution

Mercury Amidoacetate.—Stable solut. mercury glycocolate, $\text{Hg}(\text{CH}_2\text{NH}_2\text{COO})_2 = 348.70$; cont's 1% HgO .—ACTION: Antisyph.—DOSE: *Subcut.*, 0.5–1 cc. (8–15 M) (= 0.005–0.01 Gm. [$\frac{1}{12}$ – $\frac{1}{6}$ grn.] HgO), ev. other day.

Mercury Guaiacolsulphonate

$\text{Hg}(\text{C}_6\text{H}_3\text{OH.OCH}_3\text{SO}_3)_2 = 606.90$.—Brown cryst.; 33% Hg.—SOL.: W.; solut. may be steril. without decomp.—USES: Syph.—DOSE: 0.06–0.12 Gm. (1–2 grn.).—By *intramusc. inj.* into gluteus, 0.02 Gm. ($\frac{1}{2}$ grn.) grad. incr. to 0.06 Gm. (1 grn.) diss. in 1 cc. (15 M) W.

MERCURY, HAHNEMANN'S SOLUBLE—see Mercury Oxide, Black, Hahnemann

MERCURY HERB—see Mercurialis

MERCURY IMIDOSUCCINATE—see Mercury Succinimide, Mercuric

Mercury Iodate—Mercuric

$\text{Hg}(\text{IO}_3)_2 = 550.44$.—Wh., amorph. powd.—SOL.: W. cont'g NaCl or KI .—ACTION: Antisyph.; Antisept.—USES: Syph.; also f. steril. surg. instruments, as less corros. than mercury bichloride.—DOSE: 0.01–0.015 Gm. ($\frac{1}{2}$ – $\frac{1}{4}$ grn.) subcut. ev. 2–4 d.

Mercury Iodide Green—Mercurous

Green Mercury Protoiodide.— $\text{HgI} = 327.52$.—Fr. metallic Hg by triturat'g w. I.—Greenish-yellow, heavy, amorph. powd.—Insol. W., A., E.—USES & DOSES: As of the yellow mercury iodide.—INCOMP.: Soluble iodides.—CAUT.: Keep in the dark.

Mercury Iodide Red—Mercuric—C.P.

Mercury Biniodide.— $\text{HgI}_2 = 454.44$.—Scarlet red. powd.—SOL.: Abt 100 A. or E.; insol. W. but sol. in presence of sol. iodides.—MELT.: 253°C .

MAXIMUM OF IMPURITIES

Ignition Residue.....	0.050%
Substcs Insol. in KI.....	0.000%
Sulphate (SO_3).....	0.008%
Mercurous Salts (Hg').....	0.050%
Soluble Hg Salts.....	Trace

USES: Prepar'g Mayer's alkaloidal reagent, & Nessler's solut. f. NH_3 ; reagent f. alkaloids (Böhm; Valser), proteids (Brücke), glycogen (Brückner), NH_3 (Francois; Nessler), glucose (Sachsse), mineral mixtures (Thoulet), methyl

alcohol (Tuck), & in Duboin's & Flückiger's reagents.

do. Merck—Mercuric—U.S.P. X

Heavy, scarlet-red, odorl., alm., tastel. powd.; sensit. to light.—SOL.: 115 A., 910 C., 120 E., at 25°C , 20 boil. A., soluts. soluble iodides, HgCl_2 , hot alkali chlorides & $\text{Na}_2\text{S}_2\text{O}_3$, insol. W., U.S.P.; 230 olive oil, 50 castor oil.—MELT.: Abt 250°C .—SUBL.: Abt 350°C .—ACTION: Alter.; Germic.; Antisept.; Antisyph.; Emmen.—USES: *Intern.* & *extern.*, in syph., scrof., lupus, & skin dis. (espec. when obstinate); 1%–5% oint. in goiter & bronchocele; also subcut. in olive oil solut.—DOSE: 0.002–0.02 Gm. ($\frac{1}{30}$ – $\frac{1}{3}$ grn.) in pills or in W. w. KI; aver. dose 0.004 Gm. ($\frac{1}{15}$ grn.).—*Subcut.*, 0.5–1 cc. (8–15 M) of a solut. cont. 1% HgI_2 & 10% KI.—*Intramusc.*, 0.5 cc. (8 M) of a solut. cont. 1% ea. HgI_2 & NaI .—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single, 0.06 Gm. (1 grn.) p.d.—In VETER. MED. in irritant embrocations in affections of the bones, joints, and tendons, such as spavin, tendonitis, etc.—CAUT.: Best kept in dark amber bot.

Mercury Iodide Yellow Merck—Mercurous—U.S.P. X

Mercury Protoiodide.— $\text{HgI} = 327.52$.—Bright yellow, amorph., heavy powd.; darkens on expos. to light.—Pract. insol. W., A., E.—ACTION: Antisyph.; Emmen.; Alter.—USES: Advanced syph., scrof., &c. Never prescribe this w. a soluble iodide, since HgI_2 (highly poisonous) is formed.—*Extern.*, in 10% oint. in eye diseases.—DOSE: 0.006–0.05 Gm. ($\frac{1}{10}$ – $\frac{3}{4}$ grn.); aver. dose 0.01 Gm. ($\frac{1}{6}$ grn.).—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.) single; 0.15 Gm. ($2\frac{1}{2}$ grn.) p. day.—INCOMP.: Soluble iodides.—CAUT.: Keep in amber bot.

Mercury Iodochloride

Mercuric Chloroiodide.— $2\text{HgCl}_2.\text{HgI}_2 = 997.48$.—Wh. cryst.—SOL.: A.—ACTION: Antisyph.—DOSE: 0.01–0.02 Gm. ($\frac{1}{6}$ – $\frac{1}{3}$ grn.).—APPL.: As 1:80 oint.

MERCURY ISOVALERIANATE—see Mercury Valerate, Mercurous

Mercury Lactate—Mercuric

$\text{Hg}(\text{C}_3\text{H}_5\text{O}_3)_2 = 378.71$.—Wh., cryst. mass.—SOL.: Eas. W.; aqu. solut. decomp. on boil.—USES: Syph.—DOSE: 0.005 Gm. ($\frac{1}{12}$ grn.) sev'l t.p.d.—*Subcut.*, 1 cc. (15 M) of 1% solut. p.d.

do. —Mercurous

$\text{Hg}(\text{C}_3\text{H}_5\text{O}_3) = 289.66$.—Wh., cryst. powd.—SOL.: Sltly W.—USES: Syph.—DOSE: 0.008 Gm. ($\frac{1}{6}$ grn.) 4 t.p.d.—CAUT.: Keep fr. light in amber bot.

Mercury Mass Merck—U.S.P. X.

Blue Mass; Blue Pill.—Not less than 32% or over 34% Hg.—ACTION: Cath.; Alter.—USES: Constip.; incr'g biliary secret., & disinf. alim. tract; prob'ly mildest merc. sialag.—DOSE: 0.2–0.5 Gm. (3–8 grn.); aver. dose 0.3 Gm. (5 grn.).

do. Merck—Powd.

MERCURY MONOCHLORIDE—see Mercury Chloride Mercurous

Mercury Naphtholate—Mercuric

Mercury Betanaphthol.— $\text{Hg}(\text{C}_{10}\text{H}_7\text{O})_2 = 486.81$.
—Brownish powd.; abt 41% Hg.—Insol. W.—
ACTION: Antisep.—USES: *Intern.*, typhoid condit.—*Extern.*, wounds & skin dis.—DOSE: 0.06 Gm. (1 grn.).

Mercury Nitrate Merck—Mercuric—C.P.

Mercury Pernitrate.— $\text{Hg}(\text{NO}_3)_2 = 324.62$.—
Wh., deliq. powd.—SOL.: Eas. W. acidul. w. HNO_3 .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%
Mercurous Hg.....	0.00%

USES: *Chem.*, detecting CS_2 ; determ'g sucrose & lactose in condensed milk analysis, titrating urea, remedy for phylloxera, & in solut. as Millon's solut.; also as test f. CN (Benedict), acetanilid (Cella), citric acid (Devarda), inosit (Gallois), tyrosin (Hoffmann), alcohol (Jacquemart), abrastol (Leffmann; Pintus), urea (Long; Riegler), tea & maté (Lylle), albumin & salicylic acid (Millon), milk (Patein), & naphthols (Yvon).—*Medic.*, *intern.*, as antisept., alter., & antisypth. in syph., scrofula.—*Extern.*, f. freckles, & as oint. to abort boils.—DOSE: 0.004–0.015 Gm. ($\frac{1}{15}$ – $\frac{1}{4}$ grn.).—CAUT.: Keep fr. light in amber bot.

do. —Mercuric—Solution—N.F. IV

Abt 60% $\text{Hg}(\text{NO}_3)_2$, & abt 11% free HNO_3 .—Clear, nearly colorl., liq.—SP. GR.: Abt 2.086 at 25° C.—ACTION: Caustic; Antisep.—USES: *Extern.*, caustic f. cancers, chancres, ulc. of cervix, boils, & var. skin dis.; as inj. (0.05–0.1: 25) in gonorrh.

Mercury Nitrate—Mercurous, Basic

Mercurous Subnitrate.—Yellow powd.—SOL.: HNO_3 .—USES & DOSES: As of HgO (yellow); used chiefly in France.—CAUT.: Keep fr. light.

do. Merck—Mercurous, Normal—C.P.

Mercury Protonitrate. — $\text{HgNO}_3 + \text{H}_2\text{O} = 280.62$.—Colorl. cryst.—SOL.: v. dil. HNO_3 ; abt 2 warm W.; decomp. by much W.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.000%
Mercuric Hg.....	Trace

USES: Test f. eas. oxidizable substcs (e.g. formic acid); in tests f. CN (Benedict), As (Denigès), brucine (Flückiger), NH_3 (Hager), leucin (Hofmeister), Mo & Wo (Kafka), quinine (Kerner), phenol & HNO_2 (Plugge), & saccharin (Vitali).—*Medic.*, rarely as Antisypth.; Antisep.; Caustic.—DOSE: 0.002–0.015 Gm. ($\frac{1}{30}$ – $\frac{1}{4}$ grn.) sev'l t.p.d.—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.06 Gm. (1 grn.) p.d.

do. Merck—Mercurous—Normal—Cryst.

FORMULA, PROPERTIES, SOL., ETC.: As of the preceding.—USES: Technical; also in manuf'g other mercurous salts.—CAUT.: Keep fr. light.

do. —Solution

Abt 10% HgNO_3 .—Colorl. liq.—MISC.: W. w. turbid.—SP. GR.: 1.10 at 15° C.—ACTION: Caustic; Antisypth.—USES: Cancerous & syphil. ulcers.—DOSE: 0.06–0.12 cc. (1–2 M), well dil. 1–2 t.p.d.—APPL.: Pure to cancerous & syphil. ulcers; as compress & wash in 1–4:200 solut. w. W.—MAX. D.: 0.1 cc. ($\frac{1}{2}$ M) single; 0.5 cc. (8 M) p.d.

MERCURY NITRATE, AMMONIATED—see Mercury Oxide, Black, Hahnemann

MERCURY NUCLEINATE—see Mercuriol

MERCURY *p*-NUCLEINATE—see Mercedan

Mercury Oleate Merck—10%

10% solut. yellow HgO in oleic acid.—Yellow to reddish liq., or semi-solid mass.—SOL.: E. & oils.—ACTION: Antisep.; Alter.; Antisypth.; Antiparasitic.—USES: *Extern.*, skin dis., pediculi, & f. administration of mercury by inunction.—APPL.: As liniments & oint., 1–2:5 olive oil, lanum, or lard. Pain following inunction avoided by adding 1%–2% morphine oleate. In alopecia areata, mixt. of 7 mercury oleate & 1 acetic ether is used.—CAUT.: Keep fr. light.

do. Merck—25%, U.S.P. X

25% yellow HgO .—A firm, yellow mass of butter-like consist.—ACTION: Alter.; Antisep.; Antisypth.—USES: Hereditary syph., inflamed joints, syphil. swellings, rheumat. affect., glandular swellings, psoria., & o. skin dis., & scroful. inflam.—DOSE: By inunct., 0.6–1 Gm. (10–15 grn.) in syphil. in children.—In 1:5–10 oint. or olive oil inst. of mercury oint.—To avoid pain attending inunction, add 1%–2% morphine oleate.—MAX. D.: When given intern., 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.06 Gm. (1 grn.) daily.—CAUT.: Keep in well-closed containers & protect fr. strong light.

do. —B.P.

20% yellow HgO , 5% liq. paraffin, & 75% oleic acid.—USES, etc.: As of 25% oleate.

Mercury Oxide Black—Mercurous

$\text{Hg}_2\text{O} = 417.20$.—Black or brownish-black powd.; v. eas. decomp'd by light or heat into HgO & Hg.—SOL.: H_2SO_4 or HNO_3 (salts formed); insol. W.—CAUT.: Keep well stoppered in amber bot.

do. Black Merck

Hahnemann's Soluble Mercury; Ammoniated Mercury Nitrate; Black Precipitate; Oxydimercurous Ammonium Nitrate.—Approx.: $\text{Hg}_2\text{O} + \text{NH}_2\text{Hg}_2\text{NO}_3 = 896.43$.—Black or grayish-black, fine powd.; sensit. to light.—SOL.: Dil. hot acetic acid; insol. W., A.—USES: Syphil.—DOSE: 0.015–0.2 Gm. ($\frac{1}{4}$ –3 grn.).—APPL.: In 4%–20% oint.—Now obsolete.—CAUT.: Keep in dark amber bot.

Mercury Oxide Red Merck—Mercuric—C.P.

Red Precipitate.— HgO = 216.60.—Orange-red, cryst. powd.—**SOL.**: Eas. dil. HCl or HNO_3 ; alm. insol. **W.**

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.020%
Sulphate (SO_3).....	0.020%

USES: As source of O in ultimate analysis; in reagents f. detect'g & determ'g urea & dextrose; detect'g diethylbarbituric acid; in Kjeldahl N determ'n; in reag. f. wine coloring (Cazeneuve); acetone, citric acid, pental, HNO_2 , & thiophen (Denigès), glucose (Hager), dulcin (Jorissen), veronal (Lemaire), aldehyde (Leys), urea (Liebig), acetone (Oppenheimer; Reynold), milk (Patein), & cystin (Riza).

**do. Red Merck—Mercuric—N.F. V
—Scales, or Powd.**

Red Precipitate.— HgO = 216.60.—Heavy, bright, orange-red powd. or scales.—**SOL.**: HCl , HNO_3 ; insol. **W.**, **A.**—**ACTION:** Stim.; Escharotic, &c.—**USES:** Seldom intern.; *extern.*, chancres, indol. ulc., ringworm, pediculi, & in 0.5%–1% oint. as eye salve in contagious ophthalm.—*Techn.*, f. prepar. o. mercurials, in paints f. ships' bottoms, diluting pigments f. paint. on porcelain, & w. graphite as depolarizer in dry batteries.—**DOSE:** 0.004–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.), B.P.C.—**MAX. D.**: 0.02 Gm. ($\frac{1}{2}$ grn.) single, & 0.06 Gm. (1 grn.) p.d.—In **VETER. MED.** in mange, scabies, lice, chron. ecz., erysip., extern. otitis, etc., in 2%–10% oint.—**ANTID.**: See Mercury Bichloride.—**INCOMP.**: Chlorides.—**CAUT.**: Very poisonous! Should not be used while KI is being taken internally.

Mercury Oxide Yellow Merck—Mercuric—Reagent

HgO = 216.60.—Light-orange-yellow powd.—**SOL.**: Dil. HNO_3 or HCl ; insol. **W.**

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.070%
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.005%
Foreign Heavy Metals.....	0.003%
Mercurous Salts (Hg').....	Trace

USES: Volumetr. determ'n of HCN ; determ'g Zn as ZnO ; in reagents f. coal-tar dyes; detect'g acetic acid in formic acid, & CO in gas mixtures; standardizing volumetric soluts.; as source of O in ultimate analysis; in reagents f. detect'g & determ'g urea & dextrose; detect'g diethylbarbituric acid; in Kjeldahl N determ'n; in reag. f. wine coloring (Cazeneuve), acetone, citric acid, pental, HNO_2 , & thiophen (Denigès), glucose (Hager), dulcin (Jorissen), veronal (Lemaire), aldehyde (Leys), urea (Liebig), acetone (Oppenheimer; Reynold), milk (Patein), & cystin (Riza).

Mercury Oxide Yellow Merck—C. P.

Yellow Mercuric Oxide; Yellow Precipitate.— HgO = 216.60.—Light-orange-yellow powd.—**SOL.**: Dil. HNO_3 or HCl ; insol. **W.**

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.15%
Chloride (Cl).....	0.02%
Nitrate (N_2O_5).....	0.00%
Sulphate (SO_3).....	0.02%
Mercurous Salts (Hg').....	Trace

USES: As of the Reagent, above.

**do. Yellow Merck—Mercuric—U.S.P. X
—By Wet Process**

Orange-yellow, amorph., odorl., light-sensit. powd.—**SOL.**: HCl ; HNO_3 ; insol. **A.**; alm. insol. **W.**—**ACTION:** Antisep.; Antisyph., &c.—**USES:** Inst. of red HgO in inflam. of eye & f. intramusc. inject. in syph. Preferred to the red oxide because of its being in much finer powder.—**DOSE:** As intramusc. inject. 1 cc. (15 M) of 1:30 suspens. in olive oil every 8 days.—**MAX. D.**: 0.02 Gm. ($\frac{1}{2}$ grn.) single, & 0.06 Gm. (1 grn.) p.d.—**APPL.**: 1% oint. in eye diseases.—**INCOMP.**: Cocaine hydrochl. (HgCl_2 formed).

Mercury Oxycyanide—Mercuric—Cryst.

HgO.Hg(CN)_2 = 469.23.—Wh. cryst.; cont. 52%–56% Hg(CN)_2 & 44%–48% HgO .—**SOL.**: abt 80 cold, more eas. hot **W.**—**ACTION:** Antisep.—**USES:** *Intern.*, syph., neuritis, retinitis, choroiditis, otitis.—*Extern.*, diphth., erysip., & skin dis.; superior to HgCl_2 as antisep. dress'g because 6 times more active as germicide & less easily absorbed; a 1:1500 solut. eas. borne by mucosa & wound surfaces, & pract. without action on surg. instruments.—**APPL.**: 0.6% solut. f. wounds & in surg. operat. For steril. instruments, 0.1% solut. In blennor. neonat. (in which it is preferred to HgCl_2 & AgNO_3) the conjunctiva is washed 2 t.p.d. w. a 0.2% solut., w. ice compresses applied during the intervals. In o. acute dis. of conjunctiva 1%–2% solut's are used. In gonorrh., a 0.1–0.3:400 solut. by inj. In cystoscopy, a 1–2:10000 solut.—**DOSE:** In syph., 0.01 Gm. ($\frac{1}{2}$ grn.) single, & 0.03 Gm. ($\frac{1}{2}$ grn.) p.d. the first week, f. adults, & taken on a full stomach; later on 0.05 Gm. ($\frac{3}{4}$ grn.) p.d. In syph. by *subcut.* or *intramusc.* inj., 1 cc. (15 M) of a 1% solut.

MERCURY PARA-ANILINARSINATE—see Mercury Atoxylate**MERCURY PARAMINOPHENYLARSINATE—see Mercury Atoxylate****MERCURY PARANUCLEINATE—see Mercedan****MERCURY PEPTONATE—see Mercury Peptonized****Mercury Peptonized—Mercuric—Dry**

Mercury Peptonate; Mercury Bichloride, Peptonized.—Yellowish-brown powd.; 10% HgCl_2 .—**SOL.**: **W.**—**ACTION:** Antisep.—**USES:** *Intern.*, syph.—Us'y *extern.* as applic. to wounds on bandages.—**DOSE:** 0.03–0.1 Gm. ($\frac{1}{2}$ – $1\frac{1}{2}$ grn.).—*Subcut.*, in syph., 1 cc. (15 M) of 10% solut. = 0.01 Gm. ($\frac{1}{2}$ grn.) corros. sublimate; gives rise to rather decided local reaction.

Mercury Perchlorate—Mercuric

$\text{Hg}(\text{ClO}_4)_2 + 6\text{H}_2\text{O} = 507.62$.—Colorl. deliquescent. cryst.—SOL.: Eas. W.

MERCURY PERCHLORIDE—see Mercury Bichloride

MERCURY PERNITRATE—see Mercury Nitrate, Mercuric

MERCURY PERSULPHATE—see Mercury Bisulphate

Mercury Phenate—Mercuric

Mercury Carbolate, or Phenylate, or Phenolate; Phenol-mercury.— $\text{Hg}(\text{C}_6\text{H}_5\text{O})_2 = 386.74$.—Grayish-wh. to reddish-gray powd.; contains abt 52% Hg.—SOL.: 20 hot A.; alm. insol. cold W., & A.—ACTION: Antisyph.; Alter.; Antisep.—USES: Syph., partic. in secondary syph., & after previous treatment w. inunctions.—DOSE: 0.02–0.03 Gm. ($\frac{1}{2}$ – $\frac{1}{2}$ grn.); children, 0.004–0.005 Gm. ($\frac{1}{15}$ – $\frac{1}{12}$ grn.).

MERCURY PHENOLATE, or PHENYLATE—see Mercury Phenate

Mercury Phosphate—Mercuric

$\text{Hg}_3(\text{PO}_4)_2 = 791.88$.—Heavy, wh. to yellowish powd.—SOL.: Acids.—USES: Antisyph.—DOSE: 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.).

do. —Mercurous

Schaefer's Phosphorated Mercury.—Variable compos'n; approx. $\text{Hg}_3\text{PO}_4 = 696.84$.—Heavy, wh. powd.—SOL.: HNO_3 ; insol. W., A., H_3PO_4 .—USES, DOSES, &c.: As of mercuric phosphate.

MERCURY, PHOSPHORATED, SCHAEFER'S—see Mercury Phosphate, Mercurous

MERCURY POTASSIUM "HYPOSULPHITE"—see Mercury & Potassium Thiosulphate

MERCURY PROTOCHLORIDE—see Mercury Chloride Mercurous

MERCURY PROTOIODIDE—see Mercury Iodide, Green, or Yellow, Mercurous

MERCURY PROTONITRATE—see Mercury Nitrate, Mercurous, Normal

Mercury Resorcinolacetate

Resorcinol-mercury Acetate.—Yellow, cryst. powd.; 69% Hg.—SOL.: Solut. KOH, HCl, & hot glac. acetic acid; insol. W., A.—ACTION: Antisyph.—DOSE: Has been recom. f. hypoderm. use: 0.1 cc. ($\frac{1}{2}$ M) of a suspens. of 5.6 Gm. (85 grn.) of the salt in 5.6 Gm. (85 grn.) of liq. paraffin, & 2 Gm. (30 grn.) anhydrous lanum, twice weekly, the mixture being warmed to 25° C. before use; not more than 0.2 cc. (3 M) of the mixt. to be inj. p. week.

MERCURY RHODANIDE—see Mercury Sulphocyanate, Mercuric

MERCURY SALICYLARSENATE—see Enesol

Mercury Salicylate Merck—U.S.P. X^o

Secondary (or Basic) Mercuric Salicylate; Mercury Subsalicylate.— $\text{HgC}_6\text{H}_3(\text{OH})\text{COO} = 336.67$; cont's not less than 54% or over 59.5% Hg.—Wh. or sltly yellowish or pinkish powd.—SOL.: Warm alkali halides, fixed alkalies &

alkali carbonates; insol. W., A.—ACTION: Antisyph.; Antigonorr.; Alter., &c.—USES: Intern., syph.—Extern., chancre, gonorr., parasitic dermatitis, inveterate syph., & verier. affect. in 1% powd. or oint.—Subcut., dissolved in sod. or ammon. salicylate solut. w. NH_4OH ; or, as solut. made by heat'g 1 part salt w. 2 parts NaCl & 35 parts W. on hot-water bath till diss. & then add'g hot W. to make 250 parts; *intramusc.*, in aqu. or oily (1:10) suspens.; *inj.* in uretha (1:300 W. w. a little acacia, 1 cc. (15 M) inj. ev. 2 to 3 d.—Reported eas. borne by the stomach, & to produce no salivation.—DOSE: 0.003–0.02 Gm. ($\frac{1}{20}$ – $\frac{1}{3}$ grn.); aver. dose by mouth 0.004 Gm. ($\frac{1}{15}$ grn.), & *intramusc.*, aver. dose 0.06 Gm. (1 grn.) twice weekly.—Subcut. up to 0.1 Gm. ($\frac{1}{2}$ grn.) in 1:10 suspens. in liq. paraffin, B.P.C.—MAX. D.: 0.02 Gm. ($\frac{1}{3}$ grn.) single; 0.06 Gm. (1 grn.) p.d.—INCOMPAT.: KI

Mercury Santoninate—Mercurous

$\text{Hg}_2(\text{C}_{15}\text{H}_{19}\text{O}_4)_2 = 927.65$.—Wh. powd.; sensit. to light.—SOL.: Sltly A.; insol. W.

Mercury Sesquiodide—Mercuric

$2\text{HgI}_2 \cdot \text{HgI}_2 = 1563.92$.—Yellow, light-sensit. powd.—Insol. W. & A., by which decomp.

MERCURY SOZOIODOLATE—see Sozoiodole-Mercury

Mercury Stearate—Mercuric

Yellowish, gran. powd.—SOL.: v. sltly A., & fatty oils.

MERCURY SUBCHLORIDE—see Mercury Chloride Mercurous

MERCURY SUBSALICYLATE—see Mercury Salicylate

Mercury Subsulphate Merck

Turpeth Mineral; Basic Mercuric Sulphate; Oxymercuric Sulphate.— $\text{HgSO}_4 \cdot 2\text{H}_2\text{O} = 729.86$.—Heavy, yellow powd.—SOL.: Acids; v. sltly W.—ACTION: Alter.; Emetic; Antisep.—DOSE: 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.) sev'l t.p.d. in pill or powder as an alternative; as *emet.*, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.).—MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.) single; 0.2 Gm. (3 grn.) p.d.

Mercury Succinate—Mercuric

$\text{Hg}(\text{C}_4\text{H}_4\text{O}_4)_2 = 432.70$.—Wh. to yellowish cryst. powd.—SOL.: Solut. NaCl.—USES: As inj. in alveolar pyorrhea.—DOSE: 0.06 Gm. (1 grn.)

Mercury Succinimide—Mercuric

Mercury Imidosuccinate.— $(\text{CH}_2\text{CO})_2 \cdot \text{NH}_2\text{N} \cdot (\text{OCH}_2\text{C})_2 = 396.72$.—Wh., cryst. powd.—SOL.: Abt 5 hot & 20 cold W., 300 A.—ACTION: Antisyph.; Alter.; Antisep.—USES: *Intramusc.*, in acute miliary tuberc., pulmon. tuberc., typhoid, broncho-pneum., epidemic catarrh, follicular tonsillitis, furnuculosis, pneum., & gonorr. arthritis; *subcut.* in syph.—Techn., as test f. albumin (Alpers).—DOSE: 0.01–0.015 Gm. ($\frac{1}{6}$ – $\frac{1}{4}$ grn.) once p. day.—Subcut., 0.5–1 cc. (8–15 M) of 2.5% aqu. solut. Said to be free fr. disagr. local & secondary effects; soluts. do not ppt. albumin.—CAUT.: Keep in dark!

MERCURY SULPHATE, MERCURIC—see Mercury Bisulphate

Mercury Sulphate Merck—Mercurous

$\text{Hg}_2\text{SO}_4 = 497.26$.—Wh., to sltly yellowish cryst. powd.; turns gray on expos. to light.—SOL.: Dil. HNO_3 ; sltly W.—USES: In electro-techn. f. making batteries; w. ZnSO_4 in the Clark standard cell, & w. CdSO_4 in the standard Weston cell.

Mercury Sulphide Black Merck—Mercuric

Ethiops Mineral.—Mercuric sulphide cont'g uncombined Hg & much free S.—Heavy, black, or grayish-black, odorl., tastel. powd.; once supposed to be mercurous sulphide.—INSOL. W., A., dil. mineral acids.—ACTION: Alter.; Anthelm.—USES: Obsolete remedy f. glandular & cutan. dis., scrof., & worms.—*Techn.*, as pigment f. horn, horn combs, &c.—DOSE: 0.2–1 Gm. (3–15 grn.).

Mercury Sulphide Red Merck—C.P.—Powd.

Vermilion; Artificial Cinnabar; Red Mercury Sulphuret; Chinese Red.— $\text{HgS} = 232.66$.—Fine, bright, scarlet-red powd.—SOL.: Hot conc. acids; insol. W., A., cold HCl or HNO_3 ; soluble in nitrohydrochloric acid w. separ'n of sulphur.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
As & Sb Sulphides.....	0.000%
Mercury Iodide.....	0.000%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

ACTION: *Medic.*, as Sialag., Alter., & Antisept.—USES: *Extern.*, in 1%–2% oint. in herpes tonsurans, sycosis, & contagious impetigo. Somet. by fumigation in syph. cases where immed. effects are required.—The *techn.* grade is used f. coloring wafers, sealing wax, & w. FeSO_4 f. marking linen; also manuf. fancy colored papers, & as pigment.—DOSE: 2 Gm. (30 grn.) on red-hot iron & inhale fumes.—CAUT.: Keep in the dark.

Mercury Sulphocyanate Merck—Mercuric

Mercury Sulphocyanide, or Rhodanide.— $\text{Hg}(\text{SCN})_2 = 316.75$.—Wh., powd.—SOL.: A., & in solut. NaCl, KCN, & KSCN; sltly cold, more eas. hot, W.—USES: Pharaoh's serpents, & as intensifier in photography.

MERCURY SULPHURET, RED—see Mercury Sulphide, Red, Mercuric

Mercury Tannate—Mercurous

Fr. HgNO_3 & tannic acid by triturat'g w. W.—Greenish-brown powd.; abt 50% Hg.—INSOL. in usual solvents.—ACTION: Antisyph.—DOSE: 0.06–0.12 Gm. (1–2 grn.).—CAUT.: Keep in amber bots.

Mercury Tartrate—Mercurous

$\text{Hg}_2\text{C}_4\text{H}_4\text{O}_6 = 549.25$.—Yellowish-wh., cryst. powd.—INSOL. W., & acids.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Thymolacetate—Mercuric

$\text{Hg}(\text{CH}_3\text{COO})_2 \cdot \text{Hg}(\text{CH}_3\text{COO} \cdot \text{C}_{10}\text{H}_{13}\text{O}) = 727.46$.—Wh. powd. SOL.: Sltly boil. A.; v. sltly W.—ACTION: Antisyph.; Antituberc.; Alter.—USES: Tuberc., syph., scrof., &c., by intramusc. inject., us'y into gluteal muscles.—DOSE: 0.1 Gm. ($1\frac{1}{2}$ grn.), once per week in liq. paraffin or glycerin, & to which 0.1 Gm. ($1\frac{1}{2}$ grn.) cocaine may be added. Us'y given w. KI in tuberculosis.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Thymolate—Mercuric

Basic salt of variable comp.—Yellowish-gray, light-sensit. powd.—INSOL. W.—ACTION: Antisyph.—USES: As of mercury thymolacetate; the latter is stated to be better, however, being more stable.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Thymolnitrate—Mercuric

Wh. to reddish-wh. amorph. powd.—INSOL. W.—ACTION: Antisyph.—USES & DOSES: As of mercury thymolacetate.

Mercury Thymolsalicylate—Mercuric

Wh. to reddish powd.—INSOL. W.—USES & DOSES: As of mercury thymolacetate.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Thymolsulphate—Mercuric

Wh. to reddish-wh. powd.—INSOL. W.—USES & DOSES: As of mercury thymolacetate.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Tribromphenolacetate—Mercuric

Yellow, microcryst. powd.; abt 30% Hg.—SOL.: v. sltly W.—ACTION: Antisyph.; Antisep., &c.—DOSE: *Hypoderm.* in syph., dis. of the joints, scrof., & tuberc., 0.5 cc. (8 M) of a mixt. of 6.5 Gm. (100 grn.) mercury tribromphenolacetate, & 18 cc. ($4\frac{1}{2}$ fl. dr.) liq. paraffin injected twice a week in two different parts of the body.—CAUT.: Keep in amber bot. protected fr. light.

Mercury Urate—Mercuric

$\text{HgC}_5\text{H}_2\text{N}_4 = 318.68$.—Yellowish powd.—INSOL. W.

MERCURY-UREA CHLORIDE—see Mercury Bichloride, Carbamidated

Mercury Valerate—Mercurous

Mercury Isovalerianate. — $\text{Hg}_2(\text{C}_5\text{H}_5\text{O}_2)_2 = 603.39$.—Wh., cryst. powd.—INSOL. W.—CAUT.: Keep fr. light in well-stopp. bot.

MERCURY, VEGETABLE—see Manaca; Mururé

Mercury & Ammonium Bichloride

Mercuric Diammonium Chloride.— $\text{HgCl}_2 + 2\text{NH}_4\text{Cl} + 2\text{H}_2\text{O} = 414.55$.—Wh. powd.—SOL.: W.; part. in A.—ACTION: Antisep.; Alter.—USES: Hypoderm. in syph.; also pharm. Less irritating than HgCl_2 .—*Techn.*, in gilding.—DOSE: 0.02 Gm. ($\frac{1}{2}$ grn.) in 0.5 cc. (8 M) W.—APPL.: On cotton, gauze, &c.

Mercury & Antimony Sulphide

Ethiops Antimonialis.—Mixt. equal parts black mercury sulphide & gray antimony sulphide.—Gray-black powd.—SOL.: Part. in HCl; insol. W.—USES: Scrofula.—DOSE: 0.12–0.25 Gm. (2–4 grn.).

Mercury & Barium Bromide—Mercuric

HgBr₂ + BaBr₂ = 657.65.—Colorl., v. deliq. cryst. mass.—SOL.: Eas. W.

Mercury & Barium Iodide—Mercuric

HgI₂.BaI₂.5H₂O = 935.73.—Yellow or reddish, deliq., cryst., unstable mass; the salt changes & bec. red even when kept in sealed tubes.—SOL.: W., A.—USES: Making Rohrbach's solut. f. separat'g minerals of diff. sp. gr.; microchem. detect. of alkaloids (Herder).

do. Merck—Solution

Rohrbach's Solut.—Aqu. solut. HgI₂.BaI₂.5H₂O.—Yellow, clear, v. refract. liq.—SP. GR.: 3.5.—USES: Separ. minerals of diff. sp. gr.

Mercury & Copper Iodide

Mercuric-cuprous Iodide.—HgI₂.2CuI = 835.42.—Deep-red, cryst. powd.—Insol. W., A.—USES: Thermoscope; detecting overheating of machine bearings, etc. (red color changes to brownish-black at 60°–70° C., & again becomes red on cooling).

Mercury & Morphine Oleate

20% yellow HgO & 5% morphine in oleic acid.—SOL.: E., & oleic acid.—ACTION: Alter.; Antisep.; Anod.—USES: As of the official mercury oleate, espec. in pain.—CAUT.: Keep well stopp. in the dark.

Mercury & Potassium Cyanide — Mercuric — Cryst.

Hg(CN)₂.2KCN = 382.85.—Colorl. cryst.—SOL.: W.—ACTION: Antisep.—USES: Techn., in manuf. of mirrors to prevent the silvercoating fr. becoming yellow; also as test f. free acids (Geogehan).

Mercury & Potassium Iodide Merck—Mercuric

HgI₂.2KI = 786.48.—Sulphur-yellow cryst. mass; deliq. in moist air.—SOL.: v. eas. W.; without decomp. also in A., E., acetone.—ACTION: Antisep.; Stomachic.—USES: Intern., catarrhal dis. of nose, throat & bronchi; chron. bronchitis, whoop-cough, dyspep., scrofula, phth. etc.—Extern., 1:80000–1000 solut. in erysip., acne, lupus, psoria., etc.—Techn., steriliz. surg. instruments, skin, hands, etc., in 1% solut. in acetone or 70% alcoh.; refractometric purposes.—DOSE: 0.003–0.005 Gm. ($\frac{1}{20}$ – $\frac{1}{12}$ grn.)

MERCURY & POTASSIUM IODIDE SOLUTION—see Channing's, Mayer's, & Thoulet's, Solutions.

Mercury & Potassium Tartrate—Mercurous

HgKC₄H₄O₆ = 387.75.—Wh., cryst. powd.—Insol. W., A.—CAUT.: Keep fr. light in amber bot.

Mercury & Potassium Thiosulphate—Mercuric

Mercury Potassium "Hypo-sulphite."—3Hg.(S₂O₃)₂.5K₂S₂O₃ = 2226.12.—Colorl. cryst.; 31.4% mercury.—SOL.: W.—ACTION: Antisymph.—DOSE: 0.01–0.03 Gm. ($\frac{1}{2}$ – $\frac{1}{2}$ grn.) hypoderm. into glutei.

Mercury & Silver Iodide — Mercuric — For Thermoscopy

HgI₂.2AgI = 924.04.—Deep-yellow powd.—SOL.: Solut. KI & KCN; insol. W., dil. acids.—USES: Thermoscopy; detect'g overheat'g in journal bearings, etc. (becomes blood-red at 40°–50° C., & yellow again on cooling).

Mercury & Thallium Iodide—Mercuric

HgI₂.TII = 708.86.—Red, cryst. lumps.—SOL.: W.

Mercury & Thallium Nitrate—Solution

Sp. Gr. 5.3.—USES: Separating minerals by difference of sp. gr.

Mercury & Zinc Acetate—Mercuric

Wh. cryst.—SOL.: W.—ACTION: Antisep.; Antisymph.

Mercury & Zinc Cyanide—Mercuric

Mixt. of Zn(CN)₂ w. varying quantities Hg(CN)₂.—Wh. powd.; Hg(CN)₂ may be removed fr. it by treatment w. W.—ACTION: Antisep.; Germic.—USES: Extern., dust-powd. in surgery as lotion, gauze, cotton, etc.; also f. impregnating dressings; as 1:8000 gargle in syph. sore throat, & in 1:5000–1000 solut. as lotion; 1% oint. in syph. sores.

Mercury with Chalk Merck—U.S.P. X

Gray Powder.—38% Hg, 10% honey, & 57% chalk, U.S.P.—Gray powd.—Insol. W.—ACTION: Antisymph.; Hepatic Stim.; Antisep.; Anthelm.—USES: Mild mercurial in diar. & dysent., worms, amenor., tuberculosis, & syph.—DOSE: 0.2–0.6 Gm. (3–10 grn.); aver. dose 0.25 Gm. (4 grn.).

Mergal

Mixt. 1 mercuric cholate w. 2 albumin tannate; cont. abt 4.4% Hg.—Yellowish-wh. powd.—SOL.: v. sltly solut. NaCl; insol. W., A.—Mkt'd in gel. caps. ea. cont'g 0.15 Gm. (2½ grn.) = 0.05 Gm. ($\frac{1}{4}$ grn.) mercuric cholate & 0.1 Gm. (1½ grn.) albumin tannate, N.N.R.—USES: Syph. & parasymphilitic conditions, tabes, & general paralysis.—DOSE: 1 capsule 3 t.p.d.

Merkel's Chromic-Platinum Chloride

Solut. 1 Gm. CrO₃ & 1 Gm. platinic chloride in 800 cc. W.—USES: Fixing microscopical specimens.

do. Indigocarmine-Oxalic Acid

Two soluts.—(1) sat. solut. indigocarmine in 3% aqu. oxalic-acid solut.; (2) 1 Gm. carmine, 1 Gm. NH₄OH, & 50–100 cc. W.—USES: Stain'g ossification specimens.

Meroxy

Mixt. of approx. 50% sod. salt of 2,4-dihydroxy-3,5-dihydroxymercuribenzophenone-2-sulphonic

acid w. ammon. 2,4-dihydroxybenzophenone-2-sulphonate, sodium acetate, & water.—Flesh-colored or pink powd.—SOL.: Eas. W. (up to 10%).—ACTION: Loc. Antisept.; Germicide.—USES: 0.1% solut. as wet dressings f. wounds, & f. irrigat'g wounds & infected bladders; f. prophylactic treatm't of urinary infection, post-operative cystitis, acute gonorrh., abscess & carbuncle, in 0.5% solut.

Mescaline Sulphate

(C₁₁H₁₇O₃N)₂.H₂SO₄ + 2H₂O = 556.51.—Sulphate of alkaloid fr. Anhalonium Lewinii (Mescal buttons).—Colorl. cryst.—SOL.: Eas. in hot, stlty in cold, W.—The toxic symptoms of Mescal-buttons poisoning, as well as the remarkably beautiful visual color hallucinations, are ascribed to this alkaloid.

MESENTERIC GLANDS, DRIED—see Coeliacin

Mesityl Oxide

Methylisobutenylketone; Isopropylideneacetone.—(CH₃)₂C:CH.CO.CH₃ = 98.11.—Fr. acetone by HCl gas.—Colorl., oily liq.; peppermint odor.—SOL.: v. eas. A., E.—SP. GR.: 0.861 at 15° C.—BOIL.: 129°–130° C.

Mesitylene

Trimethylbenzene (-zol), symmetric.—C₆H₃(CH₃)₃[1:3:5] = 120.14.—Fr. acetone & conc. H₂SO₄ by dist'n.—Colorl. liq.; pecul. odor.—SOL.: A., B., E.—SP. GR.: 0.868 at 15° C.—BOIL.: 164° C.

Mesotan

Salmester; Methoxymethyl Salicylate; Ericin.—C₆H₄(OH.COCH₂.OCH₃) = 182.13.—Yellow, oily liq.—75% salicylic acid.—SOL.: A., B., C., E., fixed oils; v. stlty W.—SP. GR.: 1.2 at 15° C.—BOIL.: Abt 162° C. w. decomp.—ACTION: Local Antirheumatic.—USES: Musc. rheum., chr. artic. rheum., arthritis deformans, rheumat. sore throat, & sciatica, acute rheum., rheumatic fever, gonorrheal epididymitis & orchitis, rheumatic lumbago.—APPL.: 4 cc. (1 fl. dr.) of a mixt. equal parts mesotan & olive or o. bland oil.—CAUT.: Decomp. above 100° C.; also stlty by expos. to atmosph. moisture, hence keep cool & well stoppered.

Mesothorium I & II

Atomic wt = 228.—Considered to be the first decomposition product of thorium. Mktd as hydrobromide, & possesses radioactive properties. By giving off β & γ rays, is slowly transformed into radio-thorium, & then yields α, β, & γ rays, & an emanation which is only one of 7 or 8 intermediate steps from mesothorium II to the end-product, thorium-lead.—USES: Loc. in carcinoma, superficial tumors, angioma, lupus, keloid scars, & myomata, 0.004–0.02 Gm. (1/15–1/2 grn.) being applied f. 15–90 min.

MESOXALYLUREA—see Alloxan

Mesuroil

Benzois; Basic Bismuth Methoxyhydroxybenzoate.—Compos. variable.—Yellowish gray powd.; 54%–57% Bi.—Insol. W. & most organ. solvents.—ACTION: Antisymphil.—DOSE: In-

tramusc. as 20% emulsion 0.5 cc. (8 M) f. initial dose, then 1 cc. (15 M) & continued till 8–12 doses given.

METABENZAMINOCARBAZIDE—see Cryogenine

METACETALDEHYDE—see Metaldehyde

METACETONE—see Diethylketone

METACHLORONITROBENZENE (or, -ZOL)—see *m*-Chlornitrobenzene

METACHLORTOLUENE (or, -OL)—see *m*-Chlortoluene

METACHLORXYLENE—see *m*-Chlorxylene

METACRESALOL—see *m*-Cresalol

METACRESOL—see *m*-Cresol

METACRESOLACETICACID ESTER—see Cresatin

METACRESYL ACETATE—see Cresatin

METACRESYLIC ESTER OF SALICYLIC ACID—see *m*-Cresalol

METACYMOL—see *m*-Methylpropylbenzene

METADIAMINO BENZENE (or, -ZOL)—see *m*-Phenylenediamine

METADIODOANILINE—see Diiodaniline

METADIMETHYLBENZENE (or, -ZOL)—see *m*-Xylene

METADINITROBENZENE (or, -ZOL)—see *m*-Dinitrobenzene

METADIOXYAZOBENZENE (or, -ZOL)—see Sudan Yellow G

METADIOXYBENZENE (or -ZOL)—see Resorcinol

Metal, Babbit

Alloy of 69% Zn, 19% Sn, 4% Cu, 3% Sb, & 5% Pb.—USES: Machinery bearings.

do. D'Arcet—Fusible

Alloy of 18.4% Sn, 32.2% Pb, & 49.2% Bi.—Whitish-gray metal.—MELT.: 96°–97° C.—USES: *Techn.* in castings.

do. Devarda-Merck—Reagent

Devarda's Alloy.—Alloy of 3 Zn, 30 Cu, & 27 Al.—USES: in reductions, *e.g.*, in determ. HNO₃ by Ulsch's method (see Devarda's Metal, Reagent).

do. Eder

Alloy of Pb, Cd, & Zn.

do. Lipowitz—Fusible

Alloy of Bi, Pb, Cd, & Sn.—MELT.: 75° C.

do. Newton—Fusible

Alloy of 5 Sn, 5 Pb, & 8 Bi.—MELT.: 96°–97° C.

do. Rose—Fusible

Alloy of 27.3% Sn, 24% Pb, & 48.6% Bi.—Whitish-gray metal.—MELT.: 95°–96° C.—USES: *Techn.* in castings.

do. Wood—Fusible

Alloy of 12.5% Sn, 25% Pb, 50% Bi, & 12.5% Cd.—Whitish-gray metal.—MELT.: 73°–74° C.—USES: *Techn.* in castings.

Metaldehyde

Meta-Acetaldehyde.— $(C_2H_4O)_n$.—Polymer of aldehyde, obt'd fr. latter by act'n of traces of SO_3 or HCl .—Wh. prisms.—SOL.: B., C.; sltly in A., E.; insol. W.—SUBL.: Abt 112° – 115° C. Sublimes also at lower temperatures; no product has a definite "subliming temperature," but it may have a practical range.—ACTION: Sed.; Hypn.—USES: Insom. & hyst.—*Techn.*, has been employed in compressed form as a fuel inst. of alcohol.—DOSE: 0.12–0.5 Gm. (2–8 grn.).

METAMETHYLPHENOL—see *m*-Cresol

METAMETHYLPROPYLBENZENE—see *m*-Methylpropylbenzene

METAMINOTOLUENE (OR, -OL)—see *m*-Toluidine

METANIL YELLOW—see Victoria Yellow

METAOXYTOLUENE—see *m*-Cresol

Metaphen

Diacetoxymercuri-4-nitro-2-cresol.— $(CH_3COOHg)_2(C_6H_4CH_3OH.NO_2) = 670.30$.—Yellow. odorl., tastel. substce; 58%–60% Hg.—SOL.: NH_4OH , dil. $NaOH$; insol. W.; alm. insol. methyl alc., acetone, E.—ACTION: Germicide.—USES: Gonorrh., infections of eye, & f. steriliz. skin, instruments, rubber, etc.—APPL.: Soluts are made w. aid of $NaOH$; f. disinf. instruments or skin, 1:5000–1000; in ophthalmology, 1:10000–5000; f. urethral irrig'n, 1:5000–10000.

METAPHENYLENEDIAMINE—see *m*-Phenylene-diamine

METAPHENYLENEDIAMINE PAPER—see Griess' Paper, Yellow

METAPHENYLENEDIAMINE-DISAZOBIMETAPHENYLENEDIAMINE HYDROCHLORIDE—see Bismarck Brown

METASTYROL—see *m*-Styrene

METATOLUYLENEDIAMINE—see *m*-Toluylenediamine

METATOLUYLENEDIAMINE-DISAZOBIMETATOLUYLENEDIAMINE HYDROCHLORIDE—see Vesuvine B

METAXYLENE (or, -OL)—see *m*-Xylene

METAXYLIDINE, ORDINARY—see *m*-Xylidine, Asymmetric

Methacetin

Para-acetanisidin; Paraoxymethylacetanilid; Acetanisidin.— $C_6H_4(O.CH_3).NH.C_2H_3O = 165.14$.—Wh., cryst. powd.; feeble, bitter taste.—SOL.: Eas. A., acetone, C., dil. acids, alkalies; sltly W.—MELT.: 127° C.—ACTION: Antipyretic; Antineural; Antisep.; Antiferment.—USES: Pneumonia, typhoid, phth., scarlet fever, rheum., neural., &c.—DOSES: Adults, 0.25–0.5 Gm. (4–8 grn.). Children, 0.12–0.3 Gm. (2–5 grn.).

METHAFORM—see Chlorbutanol

METHANAL—see Formaldehyde Solution

METHANAMIDE—see Formamide

METHANETHIOMETHANE—see Methyl Sulphide

METHANOL—see Alcohol Methylc

Methargyl—Contains 20% Silver

Methylene Blue Silver Merck; Silver Nitrate-Methylene Blue Merck; Argochrom.—Brownish, bronze-colored powd.; abt 20% Ag.—SOL.: Eas. (up to 2%) W., & more diffic. in A., w. intense blue color; also G.—ACTION: Bactericide; Antisept.—USES: General infections, septic processes, bacteriuria, septic angina, acute artic. rheum., postpneumon. fever, pyelitis, colitis, furunculosis, gonorr., buboes, parametritis, malaria, etc.—DOSE: *intraven.* 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) diss. in 20 cc. (5 fl. dr.) W. (without sod. chloride) by inj. into forearm or thigh; *subcut.* inj., 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.) diss. in 5–10 cc. ($2\frac{1}{2}$ –5 fl. dr.) W. (without sod. chloride). To secure painless injections add 0.03 Gm. ($\frac{1}{2}$ grn.) tropacocaine hydrochlor. diss. in a little W.; locally, 1%–3% soluts by inj. in buboes, 1% soluts in furuncles, 0.1%–1% soluts in gonorrh.—VETER. MED., in glanders w. septic infection; phlegmons; infectious abortions in *cattle*; dose for *horses*, 100–150 cc. (3–4½ fl. oz.) of 1% solut.

Methemoglobin

Abnormal blood pigment.—Conversion product of & isomeric w. oxyhemoglobin.—Brownish-red cryst.—SOL.: W.

Methenamine—U.S.P. X; B.P.—Cryst. or Powd.

Hexamethylenamine; Formin (a partic. pure grade); Hexamine (B.P.); Formamine; Hexamethylenetetramine; Aminoform; Cystamin; Urisol; Cystogen.— $(CH_2)_6N_4 = 140.16$.—Wh. cryst., or cryst. powd.—SOL.: 1.5 W., 12.5 A., abt. 10 C., at 25° C., U.S.P.; alm. insol. E.—Sublimes at abt 263° C. without melt. & w. part. decomp., U.S.P.—ACTION: Uratolytic & Genito-Urinary Antisep.; Diuret.—USES: Cystitis, pyelitis, bacterial urin. dis's, etc.; also in colds, coryza, & ear diseases (exerts an antiseptic action thro. elimination via the mucous membranes).—*Techn.*, as accelerator in vulcanizing rubber; w. sod. phenate & $NaOH$ as absorber of poisonous gases; manuf. artif. resins; also as test f. hordenin (Labat) & opium alkaloids (Manseau).—DOSE: 0.3–1 Gm. (5–15 grn.) 2–3 t.p.d. w. much W., taken in the morning, or morning & evening; aver. dose 0.3 Gm. (5 grn.). In bacterial urinary diseases the best results are obt'd when the urine is acid, hence equal doses of sodium benzoate or sod. biphosphate should be given, not with, but in alternation with, the methenamine.—*Subcut.*, in typhoid, infectious enteritis, septicemia, 0.4 Gm. (7 grn.) 2 t.p.d., incr. to 6 Gm. (90 grn.) p. day.—MAX. D.: 1 Gm. (15 grn.) single & 3 Gm. (45 grn.) per day.—VETER. MED., in nephritis & cystitis, *horses* & *cattle*, 5–8 Gm. (75–120 grn.); *dogs*, 0.25–0.5 Gm. (4–8 grn.) w. much W. 2–3 t.p.d.

METHENAMINE BROMETHYLATE—see Bromalin

METHENAMINE CAMPHORATE—see Amphotropin

METHENAMINE-LITHIUM BENZOATE—see Urystamine

METHENAMINE SALICYLATE—see Saliformin

METHENYL TRIBROMIDE—see Bromoform

METHOETHYLPHENMETHYLLOL—see Alcohol Cuminic

METHOXYACETPHENETIDIN—see Kryofine

METHOXY-*p*-ALLYLPHENOL—see Eugenol

p-METHOXYBENZALDEHYDE—see Aldehyde Anisic

Methoxycaffeine

$C_8H_9(OCH_3)_2N_4 = 224.17$.—Fr. monobrom-caffeine, KOH, & methyl A. by boil.—Wh., bulky powd.—SOL.: Eas. dil. A., sltly W.—MELT.: $177^\circ C$.—ACTION: Antineural.; Anesth.—USES: *Intern.*, headache, neural.—*Extern.*, hypoderm., 1 cc. (15 M) of 2% solut. f. local anesth.—DOSE: 0.25 Gm. (4 grn.).

METHOXYHYDRASTINE—see Narcotine

METHOXYMETHYL SALICYLATE—see Mesotan

p-METHOXYPROPYLBENZENE—see Anethol

Methyl Acetate Merck

$CH_3.COOCH_3 = 74.06$.—Fr. methyl A., lead acetate, & H_2SO_4 by dist'n.—Colorl. liq.—SOL.: W., all prop. A., E.—SP. GR.: 0.929 at $15^\circ C$.—BOIL.: $56^\circ C$.—USES: Inst. of acetone as solvent of nitrocellulose.

Methyl Acetoacetate

$CH_3.CO.CH_2.COO.CH_3 = 116.09$.—Fr. methyl acetate & Na.—Colorl., transp. liq.—SOL.: A., E.—SP. GR.: 1.080 at $15^\circ C$.—BOIL.: $170^\circ C$.—USES: Manuf. intermediates.

Methyl Acetylsalicylate

Methylrhodin; Methylaspirin.— $OCOCH_3.C_6H_4.COOCH_3 = 194.13$.—Colorl. cryst.—SOL.: A., E., oils; insol. W.—MELT.: $48^\circ C$.—ACTION: Antineuralgic.—USES: Influenza, rheum.—DOSE: 0.5–1 Gm. (8–15 grn.) single; 5–8 Gm. (75–120 grn.) p.d.

METHYL ALDEHYDE—see Formaldehyde Solution

METHYL-*p*-AMINOPHENOL SULPHATE—see Photol

Methyl Anisate

$C_6H_4.OCH_3.COOCH_3[1:4] = 166.13$.—Fr. anisic acid, methyl A., & H_2SO_4 by dist'n.—Colorl. scales.—SOL.: A.—MELT.: 45° – $46^\circ C$.—BOIL.: $255^\circ C$.

Methyl Anthranilate

Artificial Neroli Oil.— $H_2N.C_6H_4.COO.CH_3[1:2] = 151.12$.—Fr. anthranilic acid & methyl A. by heat.—Colorl. cryst.—SOL.: v. eas. A., E.; sltly W.—MELT.: $24.5^\circ C$.—SP. GR.: 1.168 at $15^\circ C$.—BOIL.: $132^\circ C$. at 14 mm.—USES: As perfume f. oints; manuf. synthetic perfumes.

Methyl Benzoate Merck

Essence (or Oil) Niobé.— $C_6H_5.COOCH_3 = 136.10$.—Fr. benzoic acid, methyl A., & H_2SO_4 by dist'n.—Colorl., transp. liq.—SOL.: A., E.—SP. GR.: 1.094 at $15^\circ C$.—BOIL.: 199°

C .—USES: In perfumery, under the name "Peau d'Espagne."

METHYL BENZOYLSALICYLATE—see Benzosalin

METHYL BETANAPHTHOLATE—see Nerolin

Methyl Bichloride Merck—Accord. to Richardson

Mixt. of 1 vol. purest methyl alcohol & 4 vols chloroform (Richardson).—Colorl. liq.—USES: Inhal. Anesth.—CAUT.: Keep fr. light.—N.B.: Do not confound w. Methylene Bichloride or Chloride (which latter see).

Methyl Blue

Brilliant Cotton, or Greenish, Blue; "Methyl Blue M B I f. cotton"; Sodium Triphenyl-pararosanilinetrissulphonate.— $C(OH)[([1]C_6H_4[4].NH.C_6H_4.SO_3Na)_3] = 839.61$.—Dark blue powd.—SOL.: W. w. blue color.—ACTION: Antisep.—USES: Recom. as a local appl. in dipth. (mixt. of 2 pts methyl blue & 98 pts sugar).—*Techn.*, as a coloring, & as dye f. cotton & silk.—CAUT.: Do not confound this w. Methylene Blue.

Methyl Bromide

Bromomethane.— $CH_3Br = 94.95$.—Fr. methyl A., Br, & P, by dist'n.—Colorl., transp. liq.; burning taste.—MISC.: A., C., E., CS_2 .—SP. GR.: 1.732 at $0^\circ C$.—BOIL.: $4^\circ C$.—USES: Organic analysis.

Methyl Butyrate

$CH_3.(CH_2)_2.COOCH_3 = 192.11$.—Fr. methyl A., butyric acid (or a butyrate), & H_2SO_4 , by dist'n.—Colorl., mobile liq.—SOL.: A.—SP. GR.: 0.906 at $15^\circ C$.—BOIL.: $102^\circ C$.

Methyl *iso*-Butyrate

$(CH_3)_2.CH.COOCH_3 = 102.11$.—Fr. methyl A., isobutyric acid, & H_2SO_4 , by dist'n.—Colorl., mobile liq.—SOL.: A.—SP. GR.: 0.890 at $20^\circ C$.—BOIL.: $92^\circ C$.

Methyl Carbonate

Dimethyl Carbonate.— $(CH_3)_2CO_3 = 90.06$.—Fr. methyl chlorocarbonate & lead oxide by boil'g.—Colorl. liq.—SOL.: A., E.—SP. GR.: 1.065 at $17^\circ C$.—MELT.: $0.5^\circ C$.—BOIL.: $91^\circ C$.

Methyl Chloracetate

$CH_2Cl.COOCH_3 = 108.52$.—Fr. chloracetic acid in methyl A. by HCl gas.—Colorl. liq.—SOL.: A.—SP. GR.: 1.22 at $15^\circ C$.—BOIL.: $130^\circ C$. at 740 mm.

Methyl Chloride

Chloromethane.— $CH_3Cl = 50.49$.—Fr. methyl A., NaCl, & H_2SO_4 , by dist'n.—Gas compressed in cylinders to a colorl. liq. of ethereal odor & sweet taste.—SOL.: Eas. C., E., acetic acid; less eas. in A.; alm. insol. W.—SP. GR.: Abt 0.991 at abt $-25^\circ C$.—BOIL.: Abt $-21^\circ C$.—ACTION: Local & General Anesth.—USES: *Extern.*, as spray in severe neural, pruritus, & spinal pains. Also *techn.*, in refrigeration, & in organic synthesis.—CAUT.: By its evap'n a temp. of $-23^\circ C$ is produced, & w. a current of

air even -55°C. , hence its use as a local anesthetic requires caution since its application may cause blisters.

Methyl Chlorocarbonate

Methyl Chloroformate.— $\text{CH}_3\text{COOCl} = 94.49$.—Fr. gaseous methyl formate by Cl .—Clear, colorl. liq.; vapors strongly irritate the eyes; neutr. or almost so to dry, blue litmus paper.—SOL.: B., C., E.; grad. decomp. by W., & A.—SP. GR.: 1.227—1.236 at 15°C. —BOIL.: 71°C.

METHYL CHLOROFORMATE—see Methyl Chlorocarbonate

Methyl Cinnamate

Methyl Cinnamate.— $\text{C}_6\text{H}_5\text{CH:CHCOOCH}_3 = 162.13$.—Fr. methyl A., cinnamic acid, & H_2SO_4 , by dist'n.—Colorl. cryst.—SOL.: A., E.—MELT.: 34°C. —BOIL.: 263°C. —USES: In confectionery because of its strawberry-like odor; & in perfumery to fix o. odors.

METHYL CINNAMYLATE—see Methyl Cinnamate

Methyl Cyanide

Acetonitrile; Ethan-nitrile.— $\text{CH}_3\text{CN} = 41.04$.—Fr. acetamide & glac. acetic acid by boil'g.—Colorl., limpid liq.; pleas. odor; burn., sweetish taste. Burns w. luminous flame w. margins colored peach-red.—MISC.: A., E., W.—BOIL.: 81°C. —SP. GR.: 0.787—0.789 at 15°C. —USES: Scientific purposes, partic. as an indifferent medium f. physico-chemical investigations; manuf. perfumes; denatur'g alcohol; organic synthesis.

Methyl Ether

Methyl Oxide.— $\text{CH}_3\text{OCH}_3 = 46.06$.—Fr. CH_3OH & H_2SO_4 .—Colorl. gas; ethereal odor; burns w. a sltly luminous blue flame; condenses at -21°C. to a colorl. inflam. liq.—SOL.: 1 vol. W. takes up 37 vols. gas; far more sol. in A.—USES: Manuf. artif. ice.

Methyl Formate

$\text{CH}_3\text{COOH} = 60.04$.—Fr. sodium formate, methyl A., & HCl by dist'n.—Colorl. liq.; agre. odor.—SOL.: A.—SP. GR.: 0.970—0.980 at 15°C. —BOIL.: 32°C.

METHYL GALLATE—see Gallicin

Methyl Green

Paris-, Light-, or Double, Green.—Double salt of ZnCl_2 & chlormethylhexamethylpararosaniline hydrochloride; also without ZnCl_2 .— $\text{Cl} \cdot (\text{CH}_3)_3\text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{C} : (\text{C}_6\text{H}_4\text{N}[(\text{CH}_3)_2]_2\text{Cl} = 458.34$, or w. ZnCl_2 .—Green powd.—SOL.: W., solut. blue w. green tinge; sltly A.; v. sltly amyl A.; insol. E.—USES: Dyeing silk; in bacteriology as nuclear stain f. fresh specimens (0.5 Gm. methyl green, 0.6 Gm. NaCl , & W. to make 100 Gm.); instead of gentian or methyl violet in the amyloid reaction; as constituent of Unna-Pappenheim's pyronin-methyl green solut., in Biondi-Heidenhain's solut., & in the methyl green-HCl mixt. f. detect. spermatozoa.

METHYL HEXANE—see Heptane

METHYL HYDRATE or HYDROXIDE—see Alcohol
Methylic

Methyl Iodide Merck

Iodomethane.— $\text{CH}_3\text{I} = 141.95$.—Fr. methyl A., I, & P, by dist'n.—Colorl., transp. liq.; turns brown on expos. to light.—SOL.: A.—SP. GR.: 2.280—2.286 at 15°C. —BOIL.: 42°C. —ACTION: Sedat.; Vesicant.—USES: Intern., in cancer of the breast.—Extern., inst. of cantharides. Appl. to well washed skin on paper moistened w. 15–30 drops, & covered w. some impervious material, the pain being lessened by add'n of a few drops sod. carbonate solut.; also used in sciatica.—Techn., as test f. pyridine (Hofmann); in microscopy, because of its high refractive index (1.743), as imbed'g material f. examin. diatoms.—DOSE: 0.06 cc. (1 M) in alcoh. solut.—CAUT.: Keep fr. light.

METHYL ISOPROPYL CYCLOHEXENON—see Homocamfin

METHYL ISOVALERIANATE—see Methyl Valerate

Methyl Lactate

$\text{CH}_3\text{CHOHCOOCH}_3 = 104.08$.—Fr. methyl A., sod. lactate, & H_2SO_4 , by dist'n.—Colorl., transp. liq.—SOL.: A.; decomp. by W.—SP. GR.: 1.094 at 15°C. —BOIL.: 145°C.

Methyl Malonate

Dimethyl Malonate.— $\text{CH}_2(\text{COOCH}_3)_2 = 132.09$.—Fr. malonic acid & methyl alc. by HCl gas.—Colorl. liq.—SOL.: A., E., oils.—SP. GR.: 1.16 at 15°C. —BOIL.: 181°C. —USES: Organic synthesis.

METHYL METAMINOPARA-OXYBENZOATE—see Orthoform

METHYL MUSTARD OIL—see Methyl Thiocarbimide

Methyl Orange Merck—Reagent

Sodium Paradimethylaminoazobenzenesulphonate.— $(\text{CH}_3)_2\text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{N} : \text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{SO}_3\text{Na} = 327.27$.—Orange-yellow powd. or cryst. scales. SOL.: Eas. hot, sltly in cold, W.; pract. insol. A.—INDICATOR SOLUT.: 0.1 Gm. + 100 cc. W. (alkalies = yellow; acids = red; PH = 3.1–4.4).—TEST F. SENSITIVENESS: 1 drop solut. + 100 cc. W. + 0.05 cc. 0.1*N* HCl —light-yellow should change to red; add 0.05 cc. 0.1*N* KOH —original color restored.—USES: Indicator in titrating most mineral acids & strong bases; useless f. organic acids; estimat'g alkalinity of waters; reag. f. metals (Pozzi-Escot).—NOTE: Avoid using excess of indicator; 1–2 drops solut. per 50–100 cc. sufficient f. best results.

Methyl Orange

Dimethylaniline Orange; Gold Orange; Tropaeoline D.; Orange III; Helianthine; Poirrier's Orange 3 P; Sod. Paradimethylaminoazobenzenesulphonate.— $(\text{CH}_3)_2\text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{N} : \text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{SO}_3\text{Na} = 327.27$.—Orange-yellow powd.—SOL.: Diffic. cold, eas. hot, W.; hot solut. on cool. deposits golden-yellow leaflets; insol. A.—USES: Dye wool fr. acid bath.

Methyl Orange Paper

Helianthine Paper; Tropaeolin D Paper.—Wh. paper, charged w. methyl orange.—USES: Test f. acids & alkalies (acids = red; alkalies = yellow.—PH = 2.9–4.0).

Methyl Oxalate

$(\text{CH}_3)_2\text{C}_2\text{O}_4 = 118.07$.—Fr. anhydr. oxalic acid by boil'g methyl A.—Colorl. cryst.—SOL.: W., A., E.—MELT.: 54°C .—BOIL.: 163°C .

METHYL OXIDE—see Methyl Ether

Methyl Propionate

$\text{C}_2\text{H}_5\text{COOCH}_3 = 88.08$.—Fr. methyl A., a propionate, & H_2SO_4 , by dist'n.—Colorl. liq.—SOL.: A.—SP. GR.: 0.919 at 15°C .—BOIL.: 79°C .—USES: Organic synthesis.

Methyl Red Merck—Reagent

Paradimethylaminoazobenzene - orthocarboxylic Acid.— $(\text{CH}_3)_2\text{NC}_6\text{H}_4\text{N}:\text{NC}_6\text{H}_4\text{COOH} = 269.22$.—Dark red powd. or lustr. violet cryst.—SOL.: A., glac. acetic acid; alm. insol. W.—INDICATOR SOLUT.: 0.2 Gm. + 100 cc. A.—TEST F. SENSITIVENESS: 1–2 drops indicator solut. + 100 cc. W. (CO_2 -free) + 0.1 cc. 0.01*N* NaOH—yellowish-red color changed to yellow; add 0.2 cc. 0.01*N* HCl—color changed to red; PH = 4.2–6.3.—USES: Indicator; partic. useful f. titrating NH_3 , weak organic bases, & alkaloïds; not useful f. organic acids (excepting oxalic & picric acids).

METHYL RHODANIDE—see Methyl Sulphocyanate

Methyl Salicylate Merck—U.S.P. X

Synthetic Oil of Wintergreen; Oil Betula, Sweet Birch, or Teaberry.— $\text{C}_6\text{H}_4(\text{OH})\text{COOCH}_3[1:2] = 152.10$.—Fr. methyl A., salicylic acid, & H_2SO_4 , or fr. lvs of Gaultheria procumbens or bark of Betula lenta, by dist'n.—Colorl., yellowish or reddish, oily liq.; odor & taste of gaultheria.—SOL.: Freely in A. & glac. acet. acid, abt 7 vol. 70% A. at 25°C . & sltly W., U.S.P.; (eas. CS_2 , B.P.).—SP. GR.: *Synthet.*, 1.180–1.185; & *natural* 1.176–1.182, at 25°C , U.S.P.; 1.185–1.192, at 15.5°C , B.P.—BOIL.: $219^\circ\text{--}224^\circ\text{C}$, U.S.P.—ACTION: Antirheum.; Antisep.—USES: *Intern.*, chiefly in inflamm. artic. rheum., gonorrheic rheum., gout, neuralg., pleurisy, pericarditis, scarlat.—*Extern.*, eas. absorbed by the skin, & hence applied in quant. of 3.3–8 cc. (50–120 M) to parts affected twice daily, in subacute & chron. rheum., the evaporation of the remedy being prevented by an air-tight bandage; also in orchitis, epididymitis, & in acute gonor.—*Techn.*, in microscopy, perfumery, & f. flavoring.—DOSE: 0.3–0.6 cc. (5–10 M), grad. incr. up to 2 cc. (30 M); aver. dose 0.75 cc. (12 M).—MAX. DOSE: 2 cc. (30 M) single, & 6 cc. (90 M) p. day.—APPL.: In acute gonor. as inject. (1:100 liq. petrolatum w. 10 Gm. [150 grn.] bismuth subnitrate) 3 t.p.d.; in orchitis & epididym., 20 drops rubbed in 2–3 t.p.d.; in chorea, 6–10 drops rubbed in on the thigh & leg.—NOTE: The label on the container must indicate whether the product is the synthetic, or that obt. fr. the medicinal plants mentioned.

Methyl Sebacate

Methyl Sebacinate.— $\text{C}_8\text{H}_{16}(\text{COOCH}_3)_2 = 230.24$.—Wh. cryst.—SOL.: A.—MELT.: 38°C .

METHYL SEBACINATE—see Methyl Sebacate

Methyl Sulphide

Dimethyl Sulphide; Methanethiomethane.— $(\text{CH}_3)_2\text{S} = 62.12$.—Fr. K_2S & CH_3I or CH_3Cl .—Colorl. liq.; disagre. odor.—SP. GR.: 0.855 at 15°C .—BOIL.: 37°C .—USES: Solvent f. anhydrous mineral salts.

Methyl Sulphocyanate

Methyl Rhodanide, or Thiocyanate.— $\text{CH}_3\text{SCN} = 73.10$.—Fr. KSCN & calc. methylsulphate by dist'n.—Colorl. liq.; onion odor.—SOL.: A., E.; sltly W.—SP. GR. 1.079 at 15°C .—BOIL.: 133°C .

Methyl Thiocarbimide

Methyl Mustard Oil.— $\text{CH}_3\text{N}:\text{CS} = 73.10$.—Fr. CH_3SCN by heat.—Colorl. cryst.—SOL.: A.—MELT.: 35°C .—BOIL.: 119°C .

METHYL THIOCYANATE—see Methyl Sulphocyanate

Methyl Valerate

Methyl Isovalerianate.— $\text{CH}_3\text{C}_4\text{H}_9\text{COO} = 116.13$.—Colorl. liq.; valerian odor.—SOL.: A.—SP. GR.: 0.886 at 15°C .—BOIL.: 116°C .

Methyl Violet B

Mixt. of chiefly pentamethylparosaniline chloride, & tetra & hexamethylparosaniline chlorides.—Green powd.—SOL.: W. w. deep-violet color, & in A. & C. w. bluish-violet color; insol. E. & petrol. E.—USES: Dye silk & wool direct, cotton after mord. w. tannin. Satur. alcoh. solut. f. stain. tubercle bacilli; also in tests f. monatomic alcohols (Béla von Bittó), HCl (Kost; Mollière; Velden), bile pigments (Neerman; Paul); bile (Pellissier; Yvon), alcohol (Stefanelli), & mineral acids (Witz).—The "BB" highly pure grad. (*q.v.*) may also be used f. medicinal purposes.

Methyl Violet B B—Medicinal

Mixt. of pentamethylparosaniline chloride w. tetra- & hexamethylparosaniline chlorides.—Green powd.—SOL.: W. w. deep violet color, & in A. & C. w. bluish-violet color; insol. E. & petrol. E.—USES: Given internally to detect. free HCl in stomach; where there exist hyper- & anacidity, the feces are colored violet, while if free HCl is present in the stomach, the feces are colored blue (Mollière).—DOSE: 0.05 Gm. (34 grn.) in pill form.

Methyl Violet—BN; 2B; 3B; 4B; 5B; 6B

Mixts of tetra- & hexa-methylparosaniline chlorides.—With increase in number of B's in designation the content of hexaparosaniline increases; & frequently those shades designated by the greater number of B's (B = bluish) contain also benzylated homologues. Those w. the higher B numbers approximate Crystal Violet (pure hexamethylparosaniline hydrochloride).—Green powders.—SOL.: W. w. deep-violet color; w. incr. of B numbers, the blue color deepens.

Methyl Violet—R; 2R; 3R

Mixt. of methyl violet & fuchsine. With increase of R (R = reddish) the content of fuch-

sine, & also depth of fuchsine color, increases.
—Green powders.

METHYLACETANILID—see Exalgin

METHYLACETONE—see Methyleneethylketone

METHYLACETOPYRONONE—see Acid Dehydracetic

METHYLACETYL—see Acetone

Methylal

Methylenedimethyl Ester; Formal; Dimethoxymethane; Methylenedimethylate. — $\text{CH}_2(\text{OCH}_3)_2 = 76.08$.—Fr. methyl A., MnO_2 , & H_2SO_4 by dist'n.—Colorl., clear, volat. liq.; chlorof. odor; pungent taste.—SOL.: Eas. W., A., E., oils.—SP. GR.: 0.872 at 15°C .—BOIL.: 42°C .—ACTION: Anesth.; Nerve Sed.; Hypn.; Antispasm.; Anod.—USES: *Intern.*, delir. trem., antidote in strychnine poison., tetanus, gastric & intest. pain, & in insom.—*Techn.*, in perfumery f. extract. odors, even those that are highly sensitive.—DOSE: As *hypnot.*, 1–5 cc. (15–75 M) at night, in W., or syrup. As *sedat.*, 0.15 cc. (2 M) ev. 2 or 3 hrs.—*Subcut.*, in insom. or delir. tremens, 1 cc. (15 M) of 10% aqu. solut., ev. 2 or 3 hrs.—MAX. D.: 5 cc. (75 M) single; 8 cc. (120 M) p.d.—APPL.: 10% linim. or oint. as local anesth.; by inhalation, 30–50 cc. (8–12½ fl. dr.).

Methylamine—Anhydrous

Aminomethane.— $\text{CH}_3\text{NH}_2 = 31.05$.—Fr. CH_3Br (or CH_3I) & alcoh. NH_3 by heat'g under pressure; or fr. methyl cyanurate & aqu. KOH by dist'n.—Colorl. inflam. gas at ordin. temp. & pressure; mkt'd in liquefied form as colorl., mobile liq. in tubes; strong ammonia odor; rapidly absorbed by W.—SOL.: v. eas. W.; 1 vol. W. diss. 1150 vol., B.P.C.—BOIL.: -6°C .

do. —33% Solution

Aqu. solut. methylamine.—Colorl. liq.—Misc.: W., A.—USES: As solvent of organic comp'ds; manuf. dyes; organic synthesis.

Methylamine Hydrochloride

Methylamine Hydrochlorate.— $\text{CH}_3\text{NH}_2\text{HCl} = 67.52$.—Large, colorl., deliq. plates.—SOL.: W., A.—MELT.: 222°C .—USES: Test f. lactic acid (Vournasos) & Ni (Reichard).—USES: As of methylamine solution.—CAUT.: Keep dry, fr. air.

METHYLAMINOETHANOL-CATECHOL—see Epinephrine

o-METHYLAMINOPHENOL—see o-Anisidine

Methylaniline

Monomethylaniline.— $\text{C}_6\text{H}_5.\text{NH}(\text{CH}_3) = 107.12$.—Fr. aniline, HCl, & methyl A. by heat.—Colorl. or sltly yellowish liq.; eas. becomes brown on expos. to air.—SOL.: C., E.—BOIL.: 197.5°C .—SP. GR.: 0.976 at 15°C .—USES: Organic synthesis.

Methylantraquinone

$\text{C}_6\text{H}_4.\text{C}_6\text{H}_3(\text{CO})_2.\text{CH}_3[2] = 222.16$.—Fr. anthraquinone & methyl A. by heat.—Colorl. to

yellowish cryst.—SOL.: E.; sltly B.; v. sltly A.—MELT.: 177°C .—Sublimes at boil'g-pt.—USES: Organic synthesis; manuf. dyes & intermediates.

METHYLASPIRIN—see Methyl Acetylsalicylate

METHYLATOPHAN—see Paratophan

METHYLATROPINE BROMIDE—see Atropine Methylbromide

METHYLATROPINE NITRATE—see Eumydrin

METHYLBENZENE (or, -ZOL)—see Toluene

METHYLBENZOYLECGONINE—see Cocaine

METHYLBUTANEDIACID—see Acid Pyrotartaric

METHYLBUTENEDIACID (*trans*- form)—see Acid Mesaconic

METHYLCINNAMYLKETONE—see Benzylideneacetone

METHYLCODEINE BROMIDE—see Eucodin

Methyldiphenylamine

Diphenylmethylamine.— $(\text{C}_6\text{H}_5)_2\text{N}(\text{CH}_3) = 183.18$.—Fr. diphenylamine, HCl, & methyl A. by heat.—Colorl. liq.—SOL.: A., E.—SP. GR.: 1.052 at 15°C .—BOIL.: 282°C .—USES: Organic synthesis; manuf. dyes.

METHYL-DITANNIN—see Tannoform

METHYLENE AZUR II—see Azur II

METHYLENE BICHLORIDE—see Methylene Chloride

Methylene Blue Merck—Reagent

Methylthionine Chloride.— $\text{C}_{16}\text{H}_{18}\text{N}_3\text{SCl} + 3\text{H}_2\text{O} = 373.82$.—Dark green cryst. powd. or lustr. cryst.—SOL.: Readily in W., A.

MAXIMUM OF IMPURITIES

Ash.....	0.50%
Arsenic (As).....	0.000%
Zinc (Zn).....	0.10%
Copper (Cu).....	0.00%
Matter Insol. in Alcohol.....	0.60%

USES: In microscopy as stain; in milk analysis f. approximating bacterial content; determ'g putrescibility of waters & sewage effluents; indicator in iodometry; determ'g chlorates, perchlorates, SnCl_2 , titanous comp'ds; reag. f. milk (Barthel; Schardinger), carcinoma (Fuchs-Lintz), glucose (Goff; Herzfeld; Ihl; Newmann-Wender), tuberculosis (Kusso), urine reaction (Oefele), acetoacetic acid (Ondrejowich), picric acid (Swoboda), & diabetic blood (Williamson).

Methylene Blue Merck—Medicinal—U.S.P. X

Methylthionine, or Tetramethylthionine, Chloride.— $\text{C}_{16}\text{H}_{18}\text{N}_3\text{SCl} + 3\text{H}_2\text{O} = 373.82$.—Purified dye, free fr. ZnCl_2 .—Dark-green, cryst. powd. or cryst. w. bronze luster.—SOL.: C., & freely in W. & A., U.S.P.—ACTION: Anod.;

Antiper.; Antipyr.—USES: *Intern.*, malaria; rheumat. affect. of muscles, joints, & tendon sheaths, acute & chron. interstitial nephritis; Malta fever; testing renal permeability; also in pyelitis, cystitis, dysentery, carcinoma, black-water fever, diarr., gonorr., & neuralg.; also subcut. as functional kidney test.—*Extern.*, cystoscopic exam.; chron. sore throat, stomatitis, tonsillitis, Vincent's angina, conjunctivitis, & keratitis; chron. suppur. otitis media & fetid otorrhea; detect. fistular branch in colon; ecz. in childr.; facial erysip.; smallpox.—DOSE: 0.06–0.5 Gm. (1–8 grn.) best in gelat. caps. w. a little powd. nutmeg (to avoid by-effects, e.g., irritation of bladder); aver. dose 0.15 Gm. (2½ grn.). In cystoscop. exam., 0.5 Gm. (8 grn.) 2 hrs. bef. exam.—MAX. D.: 1 Gm. (15 grn.) single, or p. day.—APPL.: Dust'g powd. in blenorraghic vaginitis & metritis, also stomatitis; 1:500 solut. in smallpox; in ecz. in childr. a 3%–5% solut. locally, allowed to dry on; as enema (1:2:5000–1000 W.) in dysentery; as 2% wash in cystitis; 1:500 solut. in otitis media & fetid otorrhea; *subcut.*, 0.05 Gm. (¾ grn.) in aqu. solut. in carcinoma, & in rheumat. affect., etc.; *intramusc.*, 0.1 Gm. (1½ grn.) in mania; f. diagnos. renal permeability, 1 cc. (15 M) of 5% solut. into gluteal muscle. Also in 6% solut. in 50% A. as inj. into fistulas bef. operating; in facial erysip., a 5% solut. painted over area & ½ inch beyond.—NOTE: During treatment w. methylene blue the urine acquires a green color.—VETER. MED., in swine pest, infectious gastrointest. dis.; *calves*, 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.—INCOMPAT.: KOH; NaOH; $K_2Cr_2O_7$; KI; H_2SO_4 ; reducing agents.—CAUT.: Do not confound with the ordinary methylene blue of the market, which is the zinc-chloride double-salt of tetramethylthionine and is commonly employed as a dye or stain, but is not eligible for use in or on the human body.

do. B (& BB)

Hydrochloride or Zinc-chloride double salt of Tetramethylthionine.—Dark-blue or red-brown powd. w. bronze reflect.—SOL.: Eas. W., w. blue color; sltly A.—USES: *Techn.* inst. of ultramarine in paper manuf.; dyeing & printing cotton.—CAUT.: Not for *internal* use; for this purpose only the "Medicinal" grade should be used!

do. BX

Commercial grade of methylene blue.—Dark-blue or reddish-brown powd.; bronze reflect.—SOL.: W., A.—USES: Dye f. cotton.—CAUT.: Not f. *intern.*, use; f. this purpose only the "Medicinal" grade should be used!

METHYLENE BLUE SILVER—see Methargyl

Methylene Bromide

Dibromomethane.— CH_2Br_2 = 173.86.—Fr. CH_2I_2 & Br.—Colorl. to yellowish liq.—SOL.: A., E.—SP. GR.: 2.499 at 15° C.—BOIL.: 98° C.

Methylene Chloride

Methylene Bichloride; Dichlormethane.— CH_2Cl_2 = 84.94.—Fr. CH_2I_2 & Cl gas.—Colorl.

liq.—SOL.: A., E.—SP. GR.: 1.355–1.360 at 15° C.—BOIL.: 41°–42° C.—ACTION: Anesthetic.—USES: As spray to produce local anesth., partic. in dentistry.—CAUT.: Use carefully. Dangerous as inhalant.—NOTE: Do not confound w. the so-called "Methyl Bichloride Richardson" (which see), or Methylene Bichloride Eastham, which is a mixture of methyl and ethyl chlorides.

Methylene Diacetate

Oxymethylene acetate; Formaldehyde Acetate.— $CH_2(C_2H_3O_2)_2$ = 132.09.—Fr. CH_2I_2 & silver acetate.—Heavy, colorl. liq.—SOL.: A., W. w. decomp.—BOIL.: 170° C.—SP. GR.: 1.136 at 20° C.—ACTION: Antisept.

Methylene Green

Nitromethylene Green; Mononitromethylene Blue.—N: $C_6H_3N(CH_3)_2.S.C_6H_2(NO_2)N(CH_3)_2.Cl$ = 364.77.—Fr. methylene blue in acid solut. by HNO_2 .—Brownish-black or grayish-black powd.—SOL.: W., & more diffic. in A. & C., w. greenish-blue color.

Methylene Iodide Merck

Diiodomethane.— CH_2I_2 = 267.86.—Fr. CH_3I & C_2H_5ONa by heat.—Leaflets at 0° C.; at ord. temp. yellow to brownish v. refractive liq., cont'g 94.9% I.—SOL.: A., E.—SP. GR.: 3.33 at 15° C.—Heaviest organic liq. known.—MELT.: (leaflets) 4° C.—BOIL.: 180° C., w. decomp., B.P.C.—USES: Separating mixtures of minerals; also as reag. (Braun; Retgers).

Methylene Violet

Dimethylsafranine Chloride; Fuchsia; Safranine; Extra Blue.— $N(C_6H_3.NH_2).C_6H_3.N$ ($N[CH_3]_2$) C_6H_5Cl = 350.74.—Brownish-violet powd.—SOL.: Eas. W., & in A., w. reddish-violet color; insol. E.; the solut. in A. fluoresces.—USES: Dyeing calicoes; also dyeing tanned cotton violet-red.—NOTE: This dye is not identical w. that described by Bernthsen under the name Methylene Violet, & frequently referred to in literature (e.g., Giemsa), the latter being dimethylthionolin, a derivative of methylene blue.

METHYLENEDIMETHYL ESTER } see Methylal

METHYLENEDIMETHYLATE }

METHYLENEDISALICYLIC-ACID IODIDE—see Formidine

METHYLENEDITANNIN—see Tannoform

Methyleosine Red

Sodium Dibromodinitrofluoresceinate.— $Na_2C_{20}H_5O_9N_2Br_2$ = 624.00.—Brown powd.—SOL.: Eas. W. & A., w. slt green fluorescence.—USES: Dyeing silk.

METHYLETHYLCARBINOL—see Alcohol, Butylic

Methylethylketone

Methylacetone.— $CH_3.CO.C_2H_5$ = 72.08.—Fr. methyl acetoacetate & H_2SO_4 by boil.—Colorl. liq.; acetone-like odor.—MISC.: W., A.—SP. GR.: 0.835–0.840 at 15° C.—BOIL.: 78°–80° C.

Methyleugenol

Allyl-3,4-veratrol; Eugenol Methylate.— $C_6H_5-C_3H_5[1].OCH_3[3].OCH_3[4] = 178.17$.—Fr. eugenol-sodium & CH_3I .—Colorl. or sltly yellowish, oily liq.; slt eugenol odor.—SOL.: A., E.; insol. W.—SP. GR.: 1.040 at 15° C.—BOIL.: Abt 244° C.

METHYLGLYCIN—see Sarcosin

METHYLGLYCOCYAMIDINE—see Creatinine

METHYLGLYCOCYAMINE—see Creatin

METHYLGLYCOLL—see Sarcosin

METHYLGLYOXALIDINE—see Lysidine

METHYLGRANATONINE—see Pseudopelletierine

Methylguanidine

Methyluramine.— $NH:C(NH_2).NH(CH_3) = 73.09$.—Ptomaine, fr. creatin.—Colorl., deliq., strongly alkaline mass.—SOL.: W.—CAUT.: Poison! Kills rabbits w. symptoms of dyspnea & spasms.

Methylguanidine Nitrate

$C_2H_7N_3.HNO_3 = 136.11$.—Prismat. cryst.—SOL.: W.—MELT.: 150° C.

n-METHYLHEXAHYDROPYRIDINECARBOXYLMETHYL BROMOMETHYLATE—see New Cesol

METHYLHEXYLCARBINOL—see Alcohol Caprylic

METHYLHEXYLKETONE—see "Aldehyde Caprylic"; Methylonanthon

Methylhydrastinine

Methylhydrastinine Hydrochloride.— $C_{12}H_{14}O_2NCl = 239.64$.—Light-yellow or greenish-yellow, hygroscopic powd.—SOL.: Eas. in W., A., C.; alm. insol. B., E., acetone; the solut'ns are yellow w. blue fluoresc.—MELT.: 213° C. w. decomp'n.—ACTION: Hemostatic; Vasoconstrictor.—USES: Where hydrastinine or stypticin indicated, partic. in excessive menstruation not due to anatomical cause, hemorrh. due to inflammatory dis. of uterus & adnexa; also as uterine tonic following delivery, & in pulmonary hemorrh.—DOSE: 0.025–0.05 Gm. ($\frac{3}{8}$ – $\frac{3}{4}$ grn.), best as tablets, 3–4 t.p.d.; *subcut.*, 1.2 cc. (18 M) of a 2% solut., repeated if necess., sev'l days.

METHYLHYDRASTININE HYDROCHLORIDE—see Methylhydrastinine

METHYLHYDROCUPREINE—see Hydroquinine

METHYLHYDROCUPREINE HYDROCHLORIDE—see Hydroquinine Hydrochloride

β -METHYLINDOLE—see Skatol

METHYLISOBUTENYLKETONE—see Mesityl Oxide

p-METHYLISOPROPYLBENZENE—see Cymene

METHYLISOPROPYLCYCLOHEXENONE—see Homocamfin

METHYLISOPROPYLPHENANTHRENE—see Retene

METHYLKETONETRIOXYBENZENE—see Gallacetophenone

METHYLMELUBRIN—see Novalgin

METHYLMORPHINE—see Codeine

METHYLNORMALPROPYLPHENOL—see Thymol

METHYLOENANTHOL—see Methylonanthon

Methylonanthon

Methylonanthon; Methylhexylketone.— $CH_3-CO(CH_2)_5CH_3 = 128.17$.—Fr. sod. ricinoleate & NaOH by dist'n.—Colorl. liq.; apple odor; camphor. taste.—SOL.: A., E.—SP. GR.: 0.824 at 15° C.—BOIL.: 172° C.

METHYLORTHOAMINOPHENOL—see Ortol

METHYLOXYETHYLPYRIDINETETRAHYDRIDE—see Tropine

METHYL PARA-AMINOPHENOL SULPHATE—see Photol

METHYLPHENDIOL—see Orcin

METHYLPHENOL *m*-, *o*- or *p*-—see *m*-, *o*-, or *p*-Cresol

METHYLPHENYLACETAMIDE—see Exalgin

METHYLPHENYLESTER—see Anisol

METHYLPHENYLQUINOLINECARBOXYLIC ACID—see Paratophan

METHYLPROPANOL—see Alcohol, Butylic

METHYLPROPANON—see Alcohol *iso*-Butylic

***m*-Methylpropylbenzene**

Metamethylpropylbenzene; Cymene fr. Oil Turpentine; Metacymol.— $C_6H_4.CH_3[1].C_3H_7[3] = 134.16$.—Fr. *m*-bromotoluene, propyl bromide, & Na.—Colorl. liq.—SOL.: A., B., E.—SP. GR.: 0.863 at 15° C.—BOIL.: 175°–177° C.

METHYLPROPYLCARBINOLURETHANE—see Hedonol

Methylpropylketone

$CH_3.CO.C_3H_7 = 86.11$.—Fr. a mixt. of calc. acetate & butyrate by dist'n.—Colorl. liq.—SOL.: A.; v. sltly W.—SP. GR.: 0.812 at 15° C.—BOIL.: 102° C.

METHYLPROPYLPHENYL HEXAHYDRIDE—see Menthol

METHYLPROTOCATECHUIC ALDEHYDE—see Vanillin

METHYL PSEUDOBUTYLKETONE—see Pinacolone

METHYLQUINOLINE—see Lepidine

α -METHYLQUINOLINE—see Quinaldine

METHYLRESORCINOL—see Orcin

METHYL RHODIN—see Methyl Acetylsalicylate

METHYLOSANILINE—see Pyoktanin Blue

Methylstrychnine

Strychninemethylammonium Hydroxide.— $CH_3.N^+OC_{20}H_{22}(NH).CO.O^- + 4H_2O = 438.40$. Fr. strychnine by CH_3I , & remov. of I.—Yellow powd.—SOL.: W., A.—USES, &c.: As of curare.

METHYLSTYRYLKETONE—see Benzylideneacetone

METHYLSULFONAL—see Sulphonethylmethane

n-METHYLTETRAHYDROPAPAVERINE—see Laudanosine

METHYLTHEOBROMINE—see Caffeine

METHYLTHIONINE CHLORIDE—see Methylene Blue

METHYLTRIHYDROXYANTHRAQUINONE—see Emodin

METHYLURAMINE—see Methylguanidine

METHYLURETHANE—see Urethylene

Methysticin

Kawaine.— $C_{15}H_{14}O_5$ = 274.19.—Non-nitrogenous substance fr. root *Macropiper* (*Piper*) *methysticum*, Miq. (Kava Root).—Wh., acic. cryst.—SOL.: Hot A. & E.; diff. W.—MELT.: 137° C.—Physiologically inactive.

METOCHINON—see Metoquinone

METOL = Photol

Metoquinone

Metochinon.— $(C_6H_4[OH]NHCH_3)_2.C_6H_4(OH)_2$ = 356.31.—A salt-like comp'd of monomethyl-*p*-amidophenol & hydroquinone.—Wh. cryst.—SOL.: 100 W.; less eas. in A., acetone; v. sltly B., C., E.—MELT.: Abt 135° C., w. decomp. & blackening.—USES: Photogr. developer.

METOZINE—see Antipyrine

Metrazol

Pentamethylenetetrazol; Cardiazol— $(CH_2)_2C:N.N_2N(CH_2)_3$ = 138.14.—Wh. cryst.—SOL.: Eas. W. & most organic solvents; the soluts. are neutral.—MELT.: 57° – 58° C.—ACTION: Cardiac & Respiratory Stim.—USES: As of camphor, where prompt cardiac or respiratory stimulation is required, as in myocarditis, arteriosclerosis, cardiac insufficiency, bronchial asthma, pneumonia, typhoid, & poisoning by gas, alcohol, etc.—DOSE: 0.1 Gm. ($1\frac{1}{2}$ grn.) in tabl. sev'l t.p.d.; or, subcut., intramusc., or intraven., 0.1 Gm. ($1\frac{1}{2}$ grn.) in solut. ev. 2–3 hrs as required.

MEXICAN SCAMMONY—see Ipomea

MEXICAN TEA—see Chenopodium

MEZEREON—see Mezereum

Mezereum—N.F. V; B.P.C.

Mezereum; Olive Spurge; Dwarf Bay; Magell; Paradise Plant; Spurge Flax; Wild Pepper.—Dried bark (also seed, tho. not official) fr. aerial portions of *Daphne Mezereum*, L., *D. Gnidium*, L., & *D. Laureola*, L., Thymelacae.—HABIT.: New England; Canada; mountainous Europe; Siberia.—CONSTIT.: *Bark*: Mezerein (acid resin); daphnin; umbelliferon; fixed oil.—*Seed*: Fixed oil; acid resin.—ACTION: *Bark*: Sialagogue; Stim.; Rubef.; Diuret.; Antispyllitic; Alter.; Vesicant.—USES: *Seed*: Diuret.; also used in alcoh. tinct. in toothache.—*Bark*: In second. syphilis, chron. rheumat., & obstin. skin dis.—*Extern.*, as irrit. oint., or blister, & f. indol. ulcers.—DOSES: *Bark*: 0.12–0.6 Gm. (2–10 grn.).—Alcoh. extr., 0.06–0.2 Gm. (1–3 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—ANTID.: Emetics, stomach siphon, demulcents, large quantities warm W.

MIALKE'S ANESTHETIC ETHER—see Ethyl Chloride Hydrochlorated

Mica—Mineral

This is the generic term for a number of native hydrated silicates, the more important of which are specifically known as Muscovite (common, or potash, mica), Lepidolite, Biotite, & Phlogopite, while others also met with are Paragonite, Zinnwaldite, & Lepidomelane. The various uses of mica are given under Muscovite (*q.v.*).

MICA, IRON-LITHIUM—see Zinnwaldite

MICHLER'S KETONE—see Tetramethyldiaminobenzophenone

Microcinin

Betanaphthol-Sodium; Sodium-Naphthol; Sodium Betanaphtholate.—75% sodium naphtholate.—Grayish-wh. powd.—SOL.: 3 W.—ACTION: Antisep.—USES: In 0.3%–0.5% aq. solut. as surg. antisep. on compresses; as vaginal & uterine wash, cleansing abscesses, etc.; in ear dis. in 0.3%–0.4% solut.; in nose affect. in 0.1% solut.; in ozena in 1:300 oint.

MICROCOSMIC SALT—see Sodium & Ammonium Phosphate

Migrainin

Mixt. of abt 91 antipyrine, abt 8.5 caffeine, & abt 0.5 citric acid.—Wh. powd.—SOL.: 2 W.—ACTION: Antineuralgic.—USES: Migraine, influenza, & conditions following alcoholic excesses.—DOSE: 0.3–1 Gm. (5–15 grn.).—MAX. D.: 2 Gm. (30 grn.) single, 3 Gm. (45 grn.) p.d.

MILFOIL—see Achillea

MILK IPECAC—see Apocynum Androsæmifolium

Milk Sugar Merck—Cryst., Gran., Powd., or Impalp. Powd.

Lactose; Lactobiose.— $C_{12}H_{22}O_{11} + H_2O$ = 360.25.—Fr. milk whey; highly purified.—Hard, cryst. masses, or wh. powd.; sweetish taste.—SOL.: 4.9 W. at 25° C., 2.6 boil. W., alm. insol. in A., insol. C., E., U.S.P.; (7 cold & 1 boil. W., B.P.).—ACTION: Nutritive; Diuretic.—USES: Consumption, cardiac dropsy, diabetes, & wasting dis.; also suitable f. establishing & maintaining the intestinal implantation of *Bacillus Acidophilus* f. the treatment of intestinal auto-intoxication. Being entirely free fr. all foreign substcs that might be injurious, this milk sugar is especially suitable f. prepar'g "modified milk" f. infants.—DOSE: 30–180 Gm. (1–6 oz.) per day; in cardiac dropsy, 100 Gm. ($3\frac{1}{4}$ oz.) p.d.; in diabetes, 100–250 Gm. ($3\frac{1}{4}$ –8 oz.) p.d.; in *intest. auto-intoxication*, 3–6 oz. w. 1–2 pints acidophilus milk per day f. 1–2 weeks to begin with, then 1–3 oz. w. $\frac{1}{2}$ –2 pints acidophilus milk per day.—Also used in pharmacy as base f. pills, tablets, etc.

MILK, SULPHUR—see Sulphur, Precipitated

MILKWEEED—see Asclepias Syriaca

Millon's Solution—Test for Albuminoids

Solut. metal Hg in equal vol. conc. HNO_3 , & then diluted w. 2 vols W.—Gives a brick-red ppt. on warming w. albumin, urea, &c.

MINERAL BLUE—see Copper Carbonate, Blue

MINERAL BUTTER—see Antimony Chloride
 MINERAL CARBON—see Graphite
 MINERAL GREEN—see Copper Arsenite; Copper Carbonate, Green
 MINERAL PITCH—see Asphalt
 MINERAL WAX—see Ceresin, White
 "MINERAL" WHITE—see Barium Sulphate
 MINUM—see Lead Oxide, Red
 MINT—see Spearmint
 MINT, BALM, or CURLED, or CROSS—see Crisp-mint
 MIRBANE, ESSENCE or OIL—see Nitrobenzene
 MISPICKLE—see Arsenopyrite

Mitchella—N.F. V

Squaw Vine; Partridge Berry; Checkerberry.—Dried plant of *Mitchella repens*, L., Rubiaceae.—HABIT.: Canada to Florida, & west to Texas & Minnesota; Japan.—ACTION: Diur.; Tonic; Astring.—USES: Dropsy, diarrh., amenorrh., dysuria; also as applic. to sore nipples.—DOSE: Aver., 2 Gm. (30 grn.).

MOBENATE = Sodium Benzyl Succinate

MOCCASIN FLOWER, YELLOW—see *Cypripedium*

Modenol

A solut. of mercury salicylate & sod. methylarsinate, & cont'g 0.6% As & 0.4% Hg.—ACTION: Antisyphilitic.—USES: Various stages of syphilis, & also in syphilitic affections of the central nervous system & meninges, in debilitated tuberculous & renally affected subjects, & vascular diseases; f. continuing the treatment following salvarsan jaundice; in congenital or acquired syphilis in nurslings, & in syphilis in pregnant women.—DOSE: 0.5 cc. (8 M) to begin with, & later on 2 cc. (30 M), the entire contents of a tube (in which form supplied) by intramusc. inj. into the glutei ev. other day, until 10–15 injections are given.

MOHR'S SALT—see Iron & Ammonium Sulphate, Ferrous

Molisch's Solution—Test for Albumin

20 Gm. alphanaphthol, 100 cc. A.—To 1 cc. sample add 2 drops test solut. & 5 cc. conc. H_2SO_4 —if albumin or peptone present a red or violet color develops.

Mollin

A potash soap cont'g abt 17% of uncombined fat acid fr. coconut oil, w. glycerin.—Yellowish-wh., smooth, soft, oint.-like mass; does not become rancid.—SOL.: W.—USES: Oint. base.

MOLUCCA GRAINS—see Croton

Molybdenite—Mineral

OCCUR.: Australia; U. S.; Norway; Canada.—LUSTER: Metallic.—COLOR: Bluish or brownish lead gray.—STREAK: Greenish, on glazed porcelain.—CLEAV.: Perfect basal.—HARDN.: 1–1.5.—SP. GR.: 4.7–4.8.—USES: Most important source of molybdic acid; important lead ore.

Molybdenum Merck

Mo = 96.00.—Discovered by Scheele to be a new element, & first obtained pure by Hjelm in 1780.—Dark-gray or black powd.; metal. luster on being rubbed.—SP. GR.: Abt 9.01.—MELT.: 2550° C.—USES: Manuf. molybdenum steel.

MOLYBDENUM DISULPHIDE—see Molybdenum Sulphide

Molybdenum Oxide Merck

Molybdenum Sesquioxide.— M_2O_3 + aq.—Grayish-black powd.—SOL.: Sltly acids.

MOLYBDENUM SESQUIOXIDE—see Molybdenum Oxide

Molybdenum Sulphide—Molybdic

Molybdenum Disulphide.— MoS_2 = 160.12.—Lustr., black powd.—Insol. W. or dil. acids.

MOLYBDENUM TRIOXIDE—see (Acid) Molybdic Anhydride

MOLYBDIC ANHYDRIDE—see (Acid) Molybdic Anhydride

MOMORDICIN—see Elaterin

MONACETIN—see Acetin

Monarda

American Horsemint; Wild Bergamot.—Lvs of *Monarda punctata*, L., Labiatae.—HABIT.: New York to Florida, west to Texas & Wisconsin.—CONSTIT.: Volat. oil.—ACTION; Antiper.; Diaph.; Carmin.—USES: Intermittent fever, flatul. colic, cholera infantum, & as appl. in local paral.—DOSE: Fl'dextr., 1–4 cc. (15–60 M).

Monarsone

Disodium Monoethylarsone.— $CH_3CH_2AsO(NaO)_2$ = 198.01.—Wh., deliquescent, odorl. powd. abt 38% As.—SOL.: v. eas. W.; solut. stable & not decomp. by boil'g or on long stand'g.—ACTION: As of arsenicals.—USES: Syph.—DOSE: 2 Gm. (30 grn.) diss. in 10 cc. (150 M) W. by intraven. inj.

Monazite—Mineral

OCCUR.: U. S.; Norway; Brazil; Switzerland.—COMPOS.: $(PO_4)(Ce,La,Nd,Pr)$.—CRYST. SYST.: Monosym.—LUSTER: Resinous.—COLOR: Yellow, brown, brownish-red.—STREAK: Wh.—CLEAV.: Good to perfect basal.—FRACT.: Brittle; nearly transp. to opaque.—HARDN.: 5–5.5.—SP. GR.: 4.9–5.3.—USES: Source of comp'ds of thorium, neodymium, & praseodymium used in incandesc. mantles.

do. Sand—Brazilian

Dense, heavy sand enriched by levigation, & consist'g chiefly of monazite, zircon, garnet, magnetite, & quartz.—USES: *Techn.*, important source of thorium comp'ds & o. rare earths.

Monel Metal

An alloy of Ni 67, Cu 28, & Co & Fe 5.—USES: Manuf. acid-resistant apparatus, machinery, filter cloths, screens, etc.

Monesia

Buranhem; Guaranham.—Bark *Chrysophyllum glypticum*, Casaretti, Sapotaceae.—HABIT.: Brazil.—CONSTIT.: Saponin (monesin ?); mo-

nesia-tannic acid; hiourhein (lucumin); glycyrrhizin.—ACTION: Expector.; Tonic; Emmen.; Alter.; Astring.; Stom.—USES: Chiefly f. prepar. the extract, also known as "monesia," which is employed in chron. diarrh., bronch., dyspep., chron. catarrh, scrofula, scurvy, & menorrhagia.—*Extern.*, in leucor., spongy gums, ulcer. mouth, carious teeth, &c.—DOSE: 0.12–1.3 Gm. (2–20 grn.); extr., 0.12–0.6 Gm. (2–10 grn.); aqu. extr. 0.12–0.3 Gm. (2–5 grn.)

MONKSHOOD—see Aconite

MONOAMINODIPHENYLAMINE HYDROCHLORIDE—see *a-a*-Diphenylhydrazine Hydrochloride

MONOBROMACETANILID—see *p*-Bromacetanilid

MONOBROMANTIPYRINE—see Bromopyrine

Monobrombenzene

Benzene Monobromide; Monobromobenzol.— C_6H_5Br = 156.99.—Fr. benzene, Br. & I.—Colorl. liq.—SOL.: A., B., C., E.; insol. W.; xylene-like odor.—BOIL.: 154°–155° C.—SP. GR.: 1.508 at 15° C.

MONOBROMETHANE—see Ethyl Bromide

α-MONOBROMOISOVALERYLUREA—see Bromural

α-Monobromnaphthalene

Naphthalene *α*-Monobromide.— $C_{10}H_7Br$ = 207.03.—Fr. naphthalene in CS_2 by Br.—Yellow liq.—SOL.: Hot A., E., B.—SP. GR.: 1.50 at 15° C.—BOIL.: 286° C.—USES: As imbedding material in micros. (f. exam'g diatoms) because of its high index of refraction (1.658).

Mono-*o*-bromphenol

$C_6H_4(OH)Br[1:2]$ = 172.99.—Fr. bromaniline by HNO_2 .—Oily, yellow to red liq.—SOL.: C., E.—BOIL.: Abt 195° C.—ACTION: Antisept.—USES: *Extern.*, wounds, injuries, erysip., &c.—APPL.: 1%–2% in petrolatum, twice p.d.

MONOBROMPHENYLACETAMIDE—see *p*-Bromacetanilid

MONOBROMOPYLENE—see Allyl Bromide

MONOBROMTOLUENE (or -OL)—see *o*-, or *p*-, Bromtoluene

MONOCALCIUM ORTHOPHOSPHATE, or PHOSPHATE—see Calcium Phosphate, Monobasic

MONOCHLORACETONE—see Chloracetone

MONOCHLORATED ACETONE—see Chloracetone

Monochlorbenzene

Benzene Chloride; "Phenyl Chloride."— C_6H_5Cl = 112.53.—Fr. benzene, I. & Cl.—Colorl., v. refract. liq.; faint but not unpleas. odor.—SOL.: Eas. A., B., C., E.; insol. W.—SP. GR.: 1.112 at 15° C.—BOIL.: 132° C.—USES: Manuf. picric acid, phenol, military poison gas, sulphur blacks & browns.

MONOCHLORETHANE—see Ethyl Chloride

MONOCHLORETHYL ALCOHOL—see Ethylene Chlorhydrin

MONOCHLORETHYLENE CHLORIDE—see Trichlorethane

α-Monochlorhydrin

Chlorpropyleneglycol; Asymmetric Chlorhydrin, or 1.Chlor-2.3.dihydroxypropane, or Alphapropenyl Chlorhydrin.— $CH_2Cl.CH(OH).CH_2(OH)$ = 110.53.—Fr. G. & HCl by heat.—Yellow, syrupy liq.—MISC.: W., A., E.—SP. GR.: 1.328 at 15° C.—USES: To lower freezing point of dynamites; manuf. intermediates.

MONOCHLORINATED DUTCH LIQUID—see Trichlorethane

m-Monochlorphenol

$C_6H_4(OH)Cl[1:3]$ = 128.53.—Fr. *m*-chloraniline sulphate by H_2SO_4 & $NaNO_2$.—Colorl. cryst.—SOL.: A., E.—MELT.: 28° C.—BOIL.: 214° C.

o-Monochlorphenol

$C_6H_4(OH)Cl[1:2]$ = 128.53.—Colorl. liq.—SOL.: Eas. A., caustic alkalis.—SP. GR.: 1.265–1.275 at 15° C.—BOIL.: 176° C.—MELT.: 7° C.

p-Monochlorphenol Merck

$C_6H_4(OH)Cl[1:4]$ = 128.53.—Fr. phenol by SO_2Cl_2 or Cl, or fr. *p*-nitrophenol by replacing NO_2 by Cl.—Colorl. cryst.—SOL.: A., E., alkalies; sltly W.—MELT.: 37° C.—BOIL.: 217° C.—ACTION: Antisept.; Caustic.—USES: *Extern.*, in erysip. as 1%–2% oint.; syphil. dis. of the eyes, tuberc. dis. of throat, chron. swell. & hyperplasias of muc. membr. of mouth & throat, in 5%–20% solut. in G.; in lupus, applied pure, heated to 40° C., followed by a 25% oint. After 12 hrs remove paste w. cotton, & apply salicylated or iodoform oint., repeating treatment ev. 2 days. Has been recommended in 2% solut. as the best remedy f. disinf. tuberculous sputa. In scarlet fever, a wash of 4 chlorphenol, 250 A., & 300 E. In keratitis & iritis, subconjunct. inject. of 1%–2% aqu. solut.; in bronchitis & phthisis, inhal. of 10–30 drops; in dentistry, pure (in cavity), & as caustic in alveolar pyorrhea. Also *techn.* in microscopy as a clearing agent.

do. —Liquid

Yellowish liq.—Cont. also ortho- & meta-chlorphenols.—MISC.: A.—SP. GR.: Abt 1.3.

MONOETHYL TARTRATE—see Acid Ethyltartaric

MONOETHYLAMINE HYDRIODIDE—see Ethylamine Hydriodide

MONOETHYLAMINE HYDROCHLORIDE—see Ethylamine Hydrochloride

MONOETHYLAMINE SULPHATE—see Ethylamine Sulphate

MONOGLYCOL SALICYLATE—see Spirosal

MONOIODBENZENE (or, -ZOL)—see Iodobenzene

MONOIDOETHANE—see Ethyl Iodide

α-MONOIDOISOVALERYLUREA—see Iodival

MONOIODPHENYLACETAMIDE—see *p*-Iodacetanilid

MONOMAGNESIUM PHOSPHATE—see Magnesium Biphosphate

MONOMETHYL TARTRATE—see Acid Methyltartaric

MONOMETHYLCAECATECHOL—see Guaiacol, Synthetic

MONOMETHYLPARA-AMINOPHENOL SULPHATE—see Phenol

MONONITROMETHYLENE BLUE—see Methylene Green

MONOPOTASSIUM CITRATE—see Potassium Citrate, Monobasic

MONOPOTASSIUM ORTHOPHOSPHATE—see Potassium Phosphate, Monobasic

MONOSALICYLIC-ACID GLYCERIN ESTER—see Glycerol

MONOSODIUM CITRATE—see Sodium Citrate, Acid

MONOSODIUM DIETHYLBARBITURATE—see Barbitol-Sodium; Veronal-Sodium

MONOSODIUM HYDROGEN CARBONATE—see Sodium Bicarbonate

MONOSODIUM ORTHOPHOSPHATE—see Sodium Phosphate, Monobasic

Monotal

Guaiacol Methylglycolate.— $\text{CH}_2(\text{O}.\text{CH}_3).\text{CO}.\text{O}.\text{C}_6\text{H}_4.\text{OCH}_3$ = 196.15.—Colorl., oily liq.—**SOL.**: A., B., C., E., 6 olive oil; diffic. in W.—**ACTION**: Analgesic.—**USES**: *Extern.*, painful affect., phlebitis, & pulmon. tuberc.; as antiphlogistic in erysip., muscul. & artic. rheum., neuralg., & orchitis; also pleuritic pains.—**APPL.**: By brush, or lightly rubbed in.

MONOXYBENZENE—see Phenol

MONSEL'S SALT—see Iron Sulphate, Ferric, Basic

MONSEL'S SOLUTION—see under Iron Sulphate, Ferric, Basic

Montan Wax

Lignite Wax.—Obt. fr. bitumin fr. lignite.—Dark-brown to wh. (when bleached) lumps.—**SOL.**: B., C., CCl_4 , hot petrol. E.; incompl. sol. hot E. or boil'g A.—**MELT.**: $80^\circ\text{--}86^\circ\text{C.}$ —**USES**: Electric insulators; polishes (replacing carnauba wax); manuf. candles, phonograph records, waterproof paints, & varnishes; sizing paper.

MOOGROL—see Ethyl Chaulmoograte

MORDANT SALTS—see Aluminum Acetate; Antimony & Potassium Tartrate

Mörner's Solution—Test f. Tyrosine

Mix 1 vol. formaldehyde, 45 vols W., & 55 vols conc. H_2SO_4 .—The solut. heated w. tyrosine develops a green color.

MORPHIA, or MORPHINA—see Morphine

Morphine Merck—Alkaloid—U.S.P. IX

Morphia; Morphina.— $\text{C}_{17}\text{H}_{19}\text{NO}_3 + \text{H}_2\text{O} = 303.26$.—Most important alkaloid fr. opium.—Wh. lustr. prisms or fine needles, or cryst. powd.; bitter taste.—**SOL.**: 3340 W., 210 A., 1220 C., 6250 E., 100 lime-W., at 25°C. , 1075 boil. W., 98 boil. A., & insol. B.—**ACTION**: Hypn., Sed.; Narcot.; Anodyne.—**USES**: Relieve pain, nerv. excitem., &c. Aged & children

v. susceptible, & need smaller doses than usual rules would require. Continued use establishes tolerance, & then larger doses will be required. Salts us'y prescribed.—*Chem.*, in tests f. minerals (Gaubert) & formaldehyde (Kentman).—**DOSES**: For *pain*, 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose 0.008 Gm. ($\frac{1}{8}$ grn.); as *hypn.*, 0.015 Gm. ($\frac{1}{4}$ grn.) in solut. or pill.—**MAX. D.**: 0.03 Gm. ($\frac{1}{2}$ grn.), single; 0.12 Gm. (2 grn.) p.d.; *subcut.*, 1–2 cc. (15–30 M) of 2% solut.—**APPL.**: In *oint.*, 1–5:100; as *enema*, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{8}$ grn.); as *supposit.*, 0.01–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).—In *dentistry*, mixed w. oil cloves as appl. to painful, exposed pulp in carious teeth.—In *VETER. MED.* as sedative in doses, for *horses*, of 0.3–0.5 Gm. (5–8 grn.) (in colic up to 0.6 Gm. [10 grn.]); *dogs*, 0.02–0.1 Gm. ($\frac{1}{3}$ – $1\frac{1}{2}$ grn.).—**ANTID.**: Emetics, stomach siphon, KMnO_4 (1 cc. [15 M] of a 1:20 aqu. solut. *subcut.*, & a small tablesp. per os ev. 2 hrs of a 1:100 solut.); paraldehyde, picrotoxin, atropine sulphate (0.0005–0.001 Gm. [$\frac{1}{120}$ – $\frac{1}{60}$ grn.]) hypoderm.; strychnine, caffeine, cocaine, strong coffee, ice to head and heat to the hands & feet, mustard plasters, vinegar enemas, exercise, electric shock, &c.—**INCOMP.**: Alkalies; tannic acid, iodic acid, KMnO_4 , borax, chlorates, FeCl_3 , iodides, lead acetate & subacet., MgO , spt. nitrous ether, AgNO_3 , HgCl_2 , gold & sod. chloride.—**CAUT.**: Poison!

Morphine Acetate Merck—U.S.P. VIII

$\text{C}_{17}\text{H}_{19}\text{NO}_3.\text{C}_2\text{H}_4\text{O}_2 + 3\text{H}_2\text{O} = 399.34$.—Yellowish-wh. powd.; slt acetic acid odor; decomp. w. age, & loses acetic acid on expos. to air.—**SOL.**: 2.25 W., 21.6 A., 480 C., & 5.2 G., at 25°C. , 2 W. at 80°C. , & 2.5 A. (95%) at 60°C. , insol. E., U.S.P. VIII.—**ACTION & USES**: As of morphine alkaloid; salt most used formerly.—**Dose**: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose 0.015 Gm. ($\frac{1}{4}$ grn.).—**MAX. D.**: 0.03 Gm. ($\frac{1}{2}$ grn.) single; 0.1 Gm. ($1\frac{1}{2}$ grn.) p. day.—**CAUT.**: Keep fr. air & light.

"MORPHINE BIMECONATE"—see Morphine Meconate

Morphine Bimeconate—Solution

Solut. acid morphine meconate, $\text{C}_{17}\text{H}_{19}\text{NO}_3.\text{C}_7\text{H}_4\text{O}_7$, in A. & W.; 100 cc. cont's 0.75 Gm. cryst. morphine = 3.44 grn. cryst. (or 5.5 grn. meconate) in ea. fl. oz., w. abt 24% absol. A. by vol.

MORPHINE "BROMIDE"—see Morphine Hydrobromide

Morphine Citrate

($\text{C}_{17}\text{H}_{19}\text{NO}_3$) $_3.\text{C}_6\text{H}_8\text{O}_7 = 1047.83 + \text{aq.}$ —Wh., cryst. powd.—**SOL.**: W.—**USES**: As of morphine alkaloid.

Morphine Hydriodide

$\text{C}_{17}\text{H}_{19}\text{NO}_3.\text{HI} + 2\text{H}_2\text{O} = 449.21$.—Wh., cryst. need.—**SOL.**: Hot, sltly cold, W.

MORPHINE HYDROBROMATE—see Morphine Hydrobromide

Morphine Hydrobromide Merck—Flakes or Powd.

Morphine "Bromide," or Hydrobromate.—

$C_{17}H_{19}NO_3 \cdot HBr + 2H_2O = 402.21$.—Wh., cryst. powd.—SOL.: 25 cold W., 50 cold A.—USES: As of morphine alkaloid & hydrochloride in nerv. affect., delir. trem., etc.; pref. to o. morphine salts, as said to cause neither headache nor nausea.

MORPHINE HYDROCHLORATE—see Morphine Hydrochloride

Morphine Hydrochloride Merck—U.S.P. X—Flakes, or Powd.

Morphine Hydrochlorate, or Muriate. — $C_{17}H_{19}NO_3 \cdot HCl + 3H_2O = 375.76$.—Wh. flakes, or cryst. powd.; bitter taste.—SOL.: 17.5 W., 52 A. at 25° C., 0.5 boil'g W., 46 A., at 60° C., sol. in G., & insol. C., E., U.S.P.—USES: As of morphine alkaloid. This salt is us'y prescribed in Great Britain & Germany, but less often in the U. S.—Chem., as test. f. methyl alcohol (Hinkel).—DOSES: Aver., 0.008 Gm. ($\frac{1}{8}$ grn.).—Hypoderm., 1–2 cc. (15–30 M) of a 2% solut. Enema, or suppository, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{8}$ grn.). Children: 0.0003 Gm. ($\frac{1}{200}$ grn.) f. ea. year of age.

MORPHINE ISOVALERIANATE—see Morphine Valerate

Morphine Lactate

$C_{17}H_{19}NO_3 \cdot C_3H_5O_3 = 375.31$.—Wh., cryst. powd.—SOL.: Abt 10 W.; sltly A.

Morphine Meconate Merck

"Morphine Bimeconate."—($C_{17}H_{19}NO_3$)₂· $C_7H_5O_7 + 5H_2O = 860.64$.—Form in which morphine chiefly exists in opium.—Yellowish-wh. powd.—SOL.: A., W.—MELT.: 110° C., w. previous decomp.—USES: As of morphine alkaloid. Said to have less disagreeable effect on brain, stomach, & intest. than o. morphine salts; recom. by Von Fronmüller as one of the best morphine salts.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).

MORPHINE MURIATE—see Morphine Hydrochloride

MORPHINE-NARCOTINE MECONATE—see Naphin

Morphine Nitrate

$C_{17}H_{19}NO_3 \cdot HNO_3 = 348.26$.—Wh., cryst. need.—SOL.: W.—USES: As of morphine.—CAUT.: Keep in dark amber bot. (becomes brown on expos. to light).

Morphine Oleate—20%

Brown, oily liq.—SOL.: A.—USES: As oint. where stomach rejects morphine.—APPL.: 0.1–0.5:10 lanum & o. fat; linim., 1–2:30 oil.—NOTE: Morphine Oleate appears to change rapidly, hence an occasional failure to relieve pain may be due to the oleate having been kept too long.

Morphine Phosphate

Approx. $3C_{17}H_{19}NO_3 \cdot 2H_3PO_4 + 7H_2O = 1177.98$.—Colorl., fine, odorl., needle-like cryst.; darken in light.—SOL.: Acids, fixed alkali hydroxides; sltly W.

Morphine Stearate

$C_{17}H_{19}NO_3 \cdot C_{17}H_{35}COOH = 569.62$.—Fr. morphine hydrochloride & sodium stearate.—Wh. lustr. scales.—SOL.: In fixed oils.—MELT.: Abt 85° C.—USES: As analgesic, in form of Morphinated Oil (0.5 Gm.: 50.0 Gm. expressed almond oil).

Morphine Sulphate Merck—U.S.P. X—Small & Large Cubes, Flakes, or Powd.

($C_{17}H_{19}NO_3$)₂· $H_2SO_4 + 5H_2O = 758.65$.—Fine, wh., cryst., powd., cubical masses, or flakes.—SOL.: 15.5 W. & 565 A. at 25° C., 0.7 W. at 80° C.; 240 A. at 60° C., & insol. C., E., U.S.P.—ACTION: Antispasmod.; Hypn.; Analg.; Nar.—USES: As of morphine alkaloid, to relieve pain, produce sleep, check diar. & dysent.; to relieve nervoun. in delir. trem., &c. Most important morphine salt in the U. S.—DOSE: 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) 3–4 t.p.d. in solut., pill, or powd.; aver. dose 0.008 Gm. ($\frac{1}{8}$ grn.).—MAX. D.: 0.03 Gm. ($\frac{1}{2}$ grn.) single; 0.12 Gm. (2 grn.) p.d.—INCOMP. & ANTID.: As of morphine alkaloid.

Morphine Tartrate

($C_{17}H_{19}NO_3$)₂· $C_4H_6O_6 + 3H_2O = 774.61$.—Wh., cryst. powd.—SOL.: W.; spar. A., alm. insol. C., E., CS₂, B.P.C.—ACTION & USES: As of morphine alkaloid.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.) *subcut.*

Morphine Valerate Merck

Morphine iso-Valerianate.— $C_{17}H_{19}NO_3 \cdot C_5H_{11}O_2 = 387.35$.—Colorl. cryst.; valeric acid odor.—SOL.: W., A.—ACTION: Sedat.—USES: Hyst., nervoun., delir. trem., &c.—DOSE: As of morphine alkaloid.—CAUT.: Keep fr. air & light (darkens); deteriorates on keeping.

MOSAIC GOLD—see Tin Bisulphide

MOSS ROSE—see Rose, Pale

MOSS STARCH—see Lichenin

MOTOR ETHER—see Ether, Motor

MOUNTAIN BALM—see Calamint; Eriodictyon

MOUNTAIN BLUE—see Copper Carbonate, Blue

MOUNTAIN DAMSON—see Simaruba

MOUNTAIN GRAPE—see Berberis

MOUNTAIN SAGE—see Artemisia Frigida

MOUNTAIN TOBACCO—see Arnica Flowers

MOUSEBANE—see Aconite

Muavine Hydrobromide

Muavine Hydrobromide.—Fr. alkaloid of "muawi," the bark fr. a Mozambique tree used as an ordeal poison.—Yellowish powd.—SOL.: W., A.—ACTION: Cardiac Stimulant.—USES: As of erythrophleine & digitalin.

MUAVINE HYDROBROMIDE—see Muavine Hydrobromide

Mucin

Glucoproteid found in the bile, & in the submaxillary gland & o. organs; probably a mixt.

of serum-globulin & true mucin & biliary salts.—Greenish-gray or yellow powd.—SOL.: W.—USES: *Intern.*, in round gastric ulcer, to afford a protective coating f. the corroded gastric mucosa, & in dry catarrh of respir. passages & ear, & also in cancer.—DOSE: 0.6 Gm. (10 grn.) w. an equal quant. NaHCO_3 at begin. of ea. meal.

MUGWEED, or MUGWORT—see *Artemisia Vulgaris*

Muira Puama

Wood of *Liriosma ovata*, Miers, Oleaceæ; or, accord. to Rebourgeon, *Acanthea virilis*, Acanthaceæ.—HABIT.: Brazil.—CONSTIT.: Aromat. resin; muira-puamine; fat; two resinous acids.—ACTION: Powerful Aphrodisiac; Antidysenteric; Antirheum.—USES: Sexual debil., senile weakness, dysentery, impotence, dyspep., rheum., menstrual colic, & paralysis.—DOSES: In rheum., 0.3–0.5 cc. (5–8 M) of 1:5 alcohol. tinct.; as an *aphrod.*, 1–4 cc. (15–60 M) fl'dextr. 3 t.p.d.

Mulberry—Fr. Cod.

Fruit of *Morus nigra*, L., Moraceæ.—HABIT.: Southern Russia; Persia; widely cultiv.—USES: To prepare a grateful beverage useful in febrile cases; also in gargles f. sore throat.

Mulder's Solution—Test for Glucose

Solut. indigocarmine rendered alkaline w. Na_2CO_3 . On add. solut. to liquids cont'g glucose & heating, color changes fr. green to red & yellow.

Mullein Flowers & Leaves—N.F. V

Dried corollas w. adhering stamens of *Verbascum Thapsiforme*, Schrad., & *V. phlomoides*, L., & of the leaves of *V. Thapsus* L., Scrophulariaceæ.—HABIT.: Europe & Central Asia.—CONSTIT.: *Flowers*: Fixed & volat. oils; coloring matter; sugar; wax; tannin; resin.—ACTION: Diaph.; Demulc.; Diur.; Anod.; Antispasm.; Antiper.—USES: *Herb*: Emoll. in bronchial affections, & resolv. in form of fomentations.—DOSE: *Flowers*, aver. 8 Gm. (2 dr.).—*Lvs*, aver., 4 Gm. (1 dr.).—Fl'dextr., 2–8 cc. (30–120 M).—The fl'dextr. of the root is similarly used & in like dose.

Müller's Solution—Hardening Fluid

1 Gm. Na_2SO_4 , 2 Gm. $\text{K}_2\text{Cr}_2\text{O}_7$, & 100 cc. W.—USES: Harden'g many organs, & partic. of the nervous system & the bulb.

MUREXANE—see Uramil

Murexid

Acid Ammonium Purpurate.— $\text{NH}_4\text{C}_8\text{H}_4\text{O}_6\text{N}_5 + \text{H}_2\text{O} = 302.17$.—Fr. uric acid by HNO_3 .—Purple-red powd.—SOL.: Diffic. cold, more eas. hot, W.; also sol. in solut. KOH; insol. A., E.—USES: *Techn.*, dyeing wool & silk.

MURILLO BARK—see Quillaja

Mururé

Vegetable Mercury.—Bark of *Urostigma cys-topodum*, Migg., Urticaceæ.—HABIT.: Brazil.—CONSTIT.: Fixed oil; alkaloid (?).—ACTION: Drastic Purg.; Antisyph.; Antirheum.—DOSE: 8–15 Gm. (2–4 dr.).

Muscovite—Mineral

Common, or Potassium, Mica.—OCCUR.: U. S.; Germany; Norway; Sweden; Ireland; Russia; East Indies.—COMPOS.: $(\text{SiO}_4)_3\text{Al}_3(\text{KNa})_3\text{H}_2$.—CRYST. SYST.: Monosym.—LUSTER: Vitreous to pearly on cleavage face.—COLOR: Colorl., gray, brown, green, yellow.—STREAK: White.—FRACT.: Perfect basal.—HARDN.: 2–2.5.—SP. GR.: 2.76–3.—USES: In form of sheets f. stove doors, windows, lamp chimneys, protective goggles, etc.; in powd. form in paints, as filler f. rubber & linoleum, lustering paper, in heat & electrical insulating mixtures, in lubricants, car axle packings, as "diamond dust," etc.; also inst. of talcum f. lubricating inner tubes in auto tires.

Musk—U.S.P. IX; B.P.C.

Dried secretion fr. preputial follicles of *Moschus moschiferus*, L., Moschidæ.—HABIT.: Northern Asia; Tonquin Thibet.—CONSTIT.: Volat. odorous substce (muskone); cholesterolin; ammonia; fat; wax; gelatinous & albuminous principles.—ACTION: Stim.; Antispasmodic; Nerve; Anodyne; Aphrodisiac.—USES: Collapse, & nerv. affect.—*Techn.*, in perfumery.—DOSE: 0.06–0.6 Gm. (1–10 grn.); aver. dose 0.25 Gm. (4 grn.).—Tr. (1:20), 2–6 cc. (30–90 M).

do. Merck—Artificial

Trinitropseudobutyl-*m*-xylene; Trinitro-(tertiary)-butyl-toluene.— $\text{CH}_3\text{C}_6\text{H}_4(\text{C}_4\text{H}_9)(\text{NO}_2)_3 = 283.18$.—Yellow cryst.—SOL.: A., v. eas. E.—MELT.: 113° – 115° C.—USES: Perfumery only; not a medicinal substitute for true musk.

MUSK ROOT—see Sumbul

Muskone

A ketone-like substce said to be the odorous substce of musk.— $\text{C}_{16}\text{H}_{30}\text{O} = 238.32$.—Colorl. oil; musk odor.—SOL.: A. (all proport.); v. sltly W.—BOIL.: 327° – 330° C. at 752 mm.—SP. GR.: 0.927 at 15° C.—Mktd in 50% solut., one kilo of which = 150 Gm. exvicated musk in strength.

Mustard, Black—U.S.P. X; B.P.C.

Brown or Red Mustard.—Dried ripe seed of *Brassica nigra* (L.) (*B. sinapoides*) Koch, & *B. juncea* (L.) Cosson, & varieties related to these species, Cruciferae.—HABIT.: Europe; Asia; natur. in U. S.—CONSTIT.: Sinigrin (potassium myronate); myrosin; sinapine (Gadamer); sinapine sulphocyanide; fixed oil; erucic (brassic) acid; behenic acid; sinapolic acid; mucilage; proteids.—ACTION: Dietetic; Carmin.; Local irrit.; Rubef.—USES: *Techn.*, source of volat. oil mustard.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose as emetic, 10 Gm. (150 grn.).

do. White—U.S.P. IX; B.P.C.

Yellow Mustard.—Ripe seeds of *Sinapis alba*, L. (*Brassica alba*, Boiss.), Cruciferae.—HABIT.: Europe; Asia; adv. in U. S.—CONSTIT.: Sinapine; sinalbin; myrosin; erucin; erucic acid; fixed oil (abt 30%); proteins (abt 25%); mucilage; behenic acid; sinapolic acid.—ACTION: Irritant; Stim.; Rubefac.; Vesicant;

Diur.; Carmin.; Dietetic.—**USES:** Hemorrhoidal affections & in tendency to flatulence.—**DOSE:** 1–4 Gm. (15–60 grn.); aver. dose as emetic, 10 Gm. (150 grn.).

MUTHMANN'S LIQUID—see Acetylene Tetrabromide

MUTTON SUET—see Suet, Prepared

Mydrine

Combination of 100 ephedrine & 1 homatropine.—**Wh. powd.**—**SOL.:** W.—**ACTION:** Mydriatic.—**USES:** Where evanescent mydriasis desired; visual disturbance lasts only abt 1 hr. Espec. valuable in diagnosis.—**APPL.:** 2–3 drops of 10% aqu. solut.

Mylabris—B.P.C.

Chinese Cantharides; Chinese Blistering Flies.—**Dried insect**, *Mylabris sidæ* (Phalerata), Pallas, Coleoptera.—**HABIT.:** China & East India.—**Rather smaller** than cantharides; black cylindrical body, rounded above, flattish below; black wing cases marked w. a spot at point of insertion, & has 3 yellow, downy bands.—**CONSTIT.:** Cantharidin (quantity larger than in cantharides, 1%–1.2%); odor & taste as of cantharides.—**USES, DOSE, & ANTID.:** As of cantharides.

Myosin

Muscle Fibrin.—Albuminoid having properties of a globulin, fr. muscle plasma of lean meat.—Yellowish-wh. powd.—**SOL.:** Dil. solut. NaCl, dil. acids & alkalies.—Myosin is believed to be the substance which, on coagulating in the muscular fiber, causes rigor mortis.

MYRICA—see Bayberry Bark

Myristica—U.S.P. X; B.P.

Nutmeg; Nux Moschata; Nuces (Semen) Nucistæ.—**Dried ripe seed** of *Myristica fragrans*, Houttuyn, Myristicaceæ, deprived of its seed-coat, & w. or without a thin coating of lime.—**HABIT.:** Southern Asia; Moluccas; cultiv. in many tropical countries.—**CONSTIT.:** Chiefly fixed (abt 40%) & volat. (8%–15%) oils (B.P.C.).—**ACTION:** Carmin.; Digestive.—**USES:** Flatulence & intest. catarrh; also as spice in cookery.—**DOSE:** 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.5 Gm. (8 grn.).—**Fl'dextr.**, 0.3–1.3 cc. (5–20 M).

Myristin

Myristic Acid Glyceride; Trimyristin.— $C_3H_5O_3(C_{14}H_{27}O)_3 = 722.91$.—**Found** besides o. glycerides, in the fixed oil fr. seed kernels of *Myristica fragrans* (Nutmeg).—**Wh.** to yellowish-gray powd.—**SOL.:** A., B., E.—**MELT.:** 55° C.

Myrobalans—B.P.

Dried, immature fruit of *Terminalia Chebula*, Retzius, Combretaceæ.—**HABIT.:** East Indies.—**CONSTIT.:** Tannin (20%–30%, B.P.C.); resins; gallic acid; glucose; bitter principle; coloring matter; fatty acids.—**ACTION:** Astring.; Cathart.—**USES:** Intest. catarrh & diarrh.—**Techn.**, in tanning & dyeing.—**DOSE:** 2–4 Gm. (30–60 grn.).—**Aqu. extr.**, 0.25–0.6 Gm. (4–10 grn.).

Myrrh—U.S.P. X; B.P.; Fr. Cod.

Gum-resin Myrrh.—Gum resin fr. *Commiphora Myrrha* (Nees), Baillon, or o. spec. of C., U.S.P.; (oleo-gum-resin fr. C. *Myrrha* Holmes, & prob. o. spec., B.P.), Burseraceæ.—**Yields** not less than 30% alcohol-sol. extractive, U.S.P.—**HABIT.:** Nubia; Somaliland; Arabia.—**CONSTIT.:** Volat. oil (2.5%–8%, B.P.C.); bitter principle (glucoside); resin (myrrhin; 25%–40%, B.P.C.); gum (57%–61%, B.P.C.).—**ACTION:** Tonic; Stomachic; Stim.; Expector.; Emmen.; Astring.; Carmin.; Vulnerary.—**USES:** *Intern.*, catarrh, phthisis, amenor., chlorosis, & debility.—*Extern.*, in spongy gums, aphthous sore throat, & unhealthy ulc.—**Techn.**, in dentifrices.—**The oil** is used *intern.* in bronchitis.—**DOSE:** 0.3–1 Gm. (5–15 grn.); aver. dose 0.5 Gm. (8 grn.).—**Aqu. extr.**, 0.3–0.6 Gm. (5–10 grn.).—**Fl'dextr.**, 0.6–1 cc. (10–15 M).—**Tr.** (1:5), 1–4 cc. (15–60 M).

Myrtillin

Extracted fr. the fresh green air dried lvs of the blueberry & various myrtles.—Grayish or brownish, amorph. substce.—**SOL.:** W. or dil. A. to form a sltly turbid solut.; acids favor solution; alkalies cause gelat. pptn; insol. absol. A., B., E.—**USES:** To reduce glycosuria in diabetic subjects; acts slowly, hence not useful where prompt results desired; does not completely abolish glycosuria, but reduces it to practically normal.—**DOSE:** Abt 1 Gm. (15 grn.) per day; no increased effect w. larger doses; also stated to be effective when given *intraven.*

Myrtol Merck

The fraction of the volat. oil fr. Myrtus communis, L., distilling betw. 166°–180° C., & consist'g chiefly of eucalyptol (cineol) & dextropinene, w. small quant. of a not fully known camphor.—**Color.** or sltly yellowish, strongly dextrogyrate (due to dextropinene) liq.; pleas. odor resembl. that of turpentine & eucalyptol.—**SOL.:** Eas. A., E.—**SP. GR.:** Abt 0.895 at 15° C.—**ACTION:** Antisep.; Anthelmintic; Stim.—**USES:** Putrid bronch., phth., tonsil., pulm. gangrene, gonorrh., cyst., & pyelitis.—**DOSE:** 0.2–0.5 cc. (3–8 M) sev'l t.p.d.—**Subcut.**, 5–10 cc. (75–150 M) of a 10% solut. in olive oil.

N

NAEGELI'S SOLUTION—see under Zinc Chloroiodide

NANNARI—see Hemidesmus

NAPELLINE—see Aconitine

NAPHTHA—see Benzin

NAPHTHA, WOOD—see Alcohol Methylic

Naphthalene Merck—U.S.P. VIII—Cryst. or Powd.

Naphthalin; Tar Camphor.— $C_{10}H_8 = 128.11$.—Wh. scales or powd.; strong coal-tar odor.—SOL.: 13 A. at 25° C., v. sol. C., E., CS_2 , & fixed & vol. oils, U.S.P. VIII; 8 olive oil, 7.5 oil turpent., Sq.—MELT.: 80° C.—BOIL.: 218° C.—Sp. Gr.: 1.15 at 15.5° C.—ACTION: Antisep.; Antidiar.; Anthelm.; Antipyr.—USES: *Intern.*, chronic & acute intest. catarrhs, worms, intest. inflam., chorea, cholera, typhoid, & chronic bronch.; also to lessen fetor of urine & stools.—*Extern.*, 1:15 oint. in pruritus ani, scabies, & o. skin dis.—DOSE: 0.12–0.6 Gm. (2–10 grn.); aver. dose, 0.12 Gm. (2 grn.). For tapeworms, 1 Gm. (15 grn.) followed by castor oil.—MAX. D.: 2 Gm. (30 grn.) single; 6 Gm. (90 grn.) p.d.—In VETER. MED., *extern.*, in skin parasites, wounds, & ulcers; *intern.*, as vermifuge. *Horses & cattle*, 5–10 Gm. (75–150 grn.); *pigs, sheep & goats*, 1–2 Gm. (15–30 grn.); *dogs*, 0.1–1 Gm. (1½–15 grn.).—INCOMPAT.: Phenol or salol (in dry titration); CrO_3 .

do. Merck—White Balls

do. Crude, Flakes or Powd.

Alm. wh., to yellowish to brownish cryst., or balls.—SOL.: A., B., C., E.—USES: *Techn.*, manuf. dyes, synthetic indigo, artif. resins, smokeless powd., synthetic tannins, phthalic acid, naphthalene comp'ds, tetralin & dekalin; also f. carbureting illuminating gas (as alcoh. carbon), destroying moths, in mixture w. oil rape seed as lubricant; in manuf. of lampblack; remov'g "bloom" fr. petroleum; in fatty lacquers & varnishes; preserv'g rubber goods, animal skins, & railway ties; in motor fuels; in disinfectants; also in manuf. celluloid.

β -NAPHTHALENE—see Anthracene

NAPHTHALENE α -MONOBROMIDE—see α -Monobromnaphthalene

NAPHTHALENE RED, or ROSE, or SCARLET—see Magdala Red

β -Naphthalene Sulphochloride

$C_{10}H_7SO_2Cl = 226.63$.—Fr. sod. β -naphthalene-sulphonate & PCl_5 .—Wh., cryst. powd.—SOL.: B., C., E., CS_2 .—MELT.: 76° C.—USES: Test f. amino acids (Abderhalden).

Naphthalene Tetrachloride

$C_{10}H_8Cl_4 = 269.95$.—Fr. naphthalene & Cl gas.—Wh. cryst.—SOL.: Sltly A., E.—MELT.: 182° C.—USES: *Intern.*, in colitis, etc.—DOSE: 0.2–0.8 Gm. (3–12 grn.) ev. 4 hrs.

NAPHTHALENE YELLOW—see Martius Yellow

NAPHTHALIDINE—see α -Naphthylamine

NAPHTHALIN—see Naphthalene

NAPHTHALOL—see Betol

α -NAPHTHOL—see Alphanaphthol

β -NAPHTHOL—see Betanaphthol

NAPHTHOL BLACK—see Brilliant Black B

α -NAPHTHOL BLUE—see Indophenol

NAPHTHOL CAMPHOR—see Betanaphthol, Camphorated

Naphthol Green B

Ferro-sodium Nitrosobetanaphtholmonosulphonate.— $C_{20}H_{10}O_{10}N_2S_2FeNa_2 = 604.16$.—Green powd.—SOL.: W., w. yellowish-green color.—USES: Coloring & painting.

α -NAPHTHOL SALICYLATE—see Alphol

NAPHTHOL YELLOW—see Martius Yellow

Naphthol Yellow S

Citronin A.; Sulphur Yellow S.; Acid Yellow S.; Sod. (or potass.) Dinitroalphanaphtholsulphonate.— $C_{10}H_4O_8N_2SNa_2 + 3H_2O = 412.21$.—Orange-yellow powd.—SOL.: Eas. W.—USES: Permitted food color when "certified"; dyeing wool & silk.

α -Naphtholbenzein

$(C_6H_5).C(C_{10}H_6.OH)_2.O.(C_6H_5).C(C_{10}H_6.OH)_2 = 766.57$.—Fr α -naphthol & benzotrichloride by heat.—Reddish-brown powd.—SOL.: A. (w. reddish-brown color), B., E., glacial acetic acid; insol. W.—USES: In 1% alcoh. solut. as indic. (alkalies = green; acids = reddish-yellow). Very sensit. to CO_2 & acids.

β -NAPHTHOLBISMUTH—see Bismuth Betanaphthol

α -Naphtholphthalein

$CO:C_6H_4O:C(C_{10}H_6)_2O = 400.27$.—Pale to grayish red powd.—SOL.: A.—MELT.: 253°–255° C.—USES: As indic. (0.1 Gm. diss. in 150 cc. A. + 100 cc. W.; strongly acid = colorl.; sltly acid = reddish; sltly alk. = greenish; strongly alk. = blue; $PH = 7.26$ – 8.68).—Partic. adapted f. weak acids in strong alcoh. solut.

α -Naphthoquinone

1,4-Alphanaphthoquinone.— $C_{10}H_6O_2[1:4] = 158.10$.—Fr. naphthalene in glac. acetic acid by CrO_3 .—Yellow cryst.—SOL.: A., B., C., v. eas. E., CS_2 , glac. acetic acid; sltly W.—MELT.: 125° C.

β -Naphthoquinone

1,2-Betanaphthoquinone.— $C_6H_4(CO.CH)_2 = 158.10$.—Fr. aminobetanaphthol in H_2SO_4 by $K_2Cr_2O_7$.—Orange-red powd.—SOL.: A., B., E.; also in W.—Decomp. at 115°–120° C. without melt.—USES: Test f. resorcinol & thalline (Edleisen).

Naphthoresorcin

1,3-Dioxynaphthalene.— $C_{10}H_8O_2 = 160.11$.—Fr. dioxynaphthalenesulphonic acid by heat. w. dil. mineral acids.—Colorl. leaflets.—SOL.: Eas. W., A.—MELT.: Abt 125° C.—USES: Test f. sugars & f. glycuronic acid in urine (Tollens), & oils (Kreis).

NAPHTHOSALOL—see Betol

NAPHTHYL SALICYLATE—see Betol

 α -Naphthylamine Merck—Pure

Alphanaphthylamine; Alphaaminonaphthalene; Naphthalidine.— $C_{10}H_7NH_2 = 143.03$.—Fr. α -nitronaphthalene by Fe filings & acetic acid.—Fine, wh. need. bec. red on expos. to air, or reddish, cryst. mass.; unpleas. odor.—SOL.: Eas. A., E.—MELT.: Abt 50° C.—BOIL.: 300° C.—USES: As hydrochloride w. sulphanilic acid as test f. HNO_2 ; manuf. α -naphthol, Martius Yellow & Magdala Red, azo dyes; toning prints made w. cerium salts.

 β -Naphthylamine Merck—Pure

$C_{10}H_7NH_2 = 143.13$.—Fr. β -naphthol & zinc-ammon. chloride by heat.—Wh. to reddish cryst.—SOL.: A., E.; sltly in W.—MELT.: 112° C.—BOIL.: 298° C.—USES: *Techn.*, in manuf. coal-tar dyes.

 α -Naphthylamine Hydrochloride

$C_{10}H_7NH_2.HCl = 179.60$.—Wh. to gray, cryst. powd.—SOL.: W., A., E.—USES: W. sulphanilic acid as test f. HNO_2 .

 β -Naphthylamine Hydrochloride

$C_{10}H_7NH_2.HCl = 179.60$.—Colorl. to yellowish plates.—SOL.: W., A.; sltly in HCl .

 α -Naphthylamine Sulphate

$(C_{10}H_7NH_2)_2.H_2SO_4 + 2H_2O = 420.37$.—Wh. to yellowish, cryst. powd.—SOL.: W., A.

NAPHTYLATED CAMPHOR—see Betanaphthol, Camphorated

NAPHTHYLENE-ETHYLENE—see Acenaphthene

β -NAPHTHYLETHYLESTER—see Bromelia

 α -Naphthylhydrazine Hydrochloride

$C_{10}H_7NH.NH_2.HCl = 194.61$.—Reddish powd.—SOL.: W.—USES: Organic synthesis.

 β -Naphthylhydrazine Hydrochloride

$C_{10}H_7NH.NH_2.HCl = 194.61$.—Reddish powd.—SOL.: A., E.; sltly in W.

 α -Naphthylisocyanate

Alphanaphthylcarbonimide.— $C_{10}H_7N:C:O = 169.12$.—Fr. naphthylurethane & P_2O_5 by dist'n.—Clear liq.; alm. odorl. at ord. temp.; only vapors have pungent odor characteristic of isocyanates, *e.g.*, phenylisocyanate.—SOL.: A., C., E., petrol.—E.—SP. GR.: 1.181 at 15° C.—BOIL.: 137° C. at 11 mm.—USES: Test f. aliphatic alcohols & amino acids (Neuberg).—CAUT.: Keep fr. light & moisture.

NAPLES YELLOW—see Lead Antimonate

Narceine Merck

Pseudonarceine.— $C_{23}H_{27}NO_8 + 3H_2O = 499.39$.—Disc. by Pelletier in 1832 in opium (0.1%—

0.2%).—Odorl., bitter, neutral, long, wh. prisms, or cryst. needles in tufts.—SOL.: Hot W., alkalies; sltly cold W., A., C., amyl-A.; insol. B., E., petrol.—E.—MELT.: Abt 170° C.; when anhydrous at 140°–145° C.—ACTION: Hypn.; Sed.; Antispasm.; Analg.; Nar.; weaker than morphine, & has no stupefying action on the brain.—USES: Coughs, colds, neuralg., whoop.-cough, bronch. catarrh, insom. & pain, as morphine.—DOSE: *Hypn.*, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.); *sed. & antispasm.*, 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.); *subcut.*, 0.015 Gm. ($\frac{1}{4}$ grn.); in *enema* & in *supposit.*, 0.01–0.05 Gm. ($\frac{1}{8}$ – $\frac{3}{4}$ grn.).—In VETER. MED. f. coughs in dogs, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.).

Narceine Hydrobromide

$C_{23}H_{27}NO_8.HBr = 526.27$ + aq.—Wh. to yellowish, gran., cryst. powd.—SOL.: A.; hot W.—USES: As of narceine.

Narceine Hydrochloride Merck

$C_{23}H_{27}NO_8.HCl + C_2H_5OH = 527.87$.—Wh., granular powd.—SOL.: Eas. hot A. & hot W.—MELT.: 166°–167° C. w. decomp., & after drying sev'l hrs in vacuo over H_2SO_4 .—ACTION & USES: As of narceine.—DOSE: 0.01–0.06 Gm. ($\frac{1}{8}$ –1 grn.).

Narceine Meconate

$(C_{23}H_{27}NO_8)_2.C_7H_4O_7 = 1090.75$ + aq.—Lemon-yellow, cryst. need.—SOL.: Hot W.—MELT.: 126° C.—USES: As of narceine.

Narceine Sulphate

$C_{23}H_{27}NO_8.H_2SO_4 + 10H_2O = 723.58$.—Wh., cryst. powd.; decomp. on heat., & becomes yellow.—SOL.: W., w. decomp. into basic salt; eas. hot A., & C.—ACTION, USES & DOSES: As of narceine.

NARCEINE-SODIUM & SODIUM SALICYLATE—see Antispasmin

NARCOPHIN—see Narphin

NARCOSINE—see Narcotine

Narcotine Merck

Anarcotine; Opianine; Opian; Aconelline; Narcosine; Meconinhydrocotarnine; Methoxyhydrastine.—Alkaloid present to extent of fr. 1 to several % in opium.— $(CH_3O)_2C_6H_2.COO.CH_2CH(N.CH_3).(CH_2)_2.C_6H(O.CH_3):(O_2:CH_2) = 413.30$.—Colorl., odorl., tastel., lustr. need. or prisms.—SOL.: B., CS_2 , ethyl acetate, acetone, petrol.—E., aniline, pyridine, piperidine, & hot alkalies; v. eas. hot A., C.; insol. cold, & sltly in hot, W.—MELT.: Abt 175° C.—ACTION: Antiperiodic; Antispasm.—USES: Reported as better than quinine & arsenic in spasmodic affect., neuralg., malaria, & in malarial migraine.—*Techn.*, as test f. HNO_3 (Couerbe).—DOSE: 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) sev'l t.p.d.; 1–1.5 Gm. (15–23 grn.) p.d.

Narcotine Hydrochloride Merck

$C_{22}H_{23}NO_7.HCl.H_2O = 467.79$.—Wh., lustr. cryst.—SOL.: W., C.—MELT.: 197°–198°.—ACTION, USES & DOSE: As of narcotine.

NARCYL—see Ethylnarceine Hydrochloride

Nargol

Comp'd of silver & nucleic acid.—Brownish powd.; cont. 10% Ag.—**SOL.**: W.—**USES**: As of AgNO_3 in 20% solut. in gonorr.; 5% solut. in conjunctival inflam.; 5%–10% oint. as stim. to slow-healing ulcers, &c.

Narphin

Morphine-Narcotine Meconate; Narcophin.— $\text{C}_{22}\text{H}_{23}\text{NO}_7 \cdot \text{C}_{17}\text{H}_{19}\text{NO}_3 \cdot \text{C}_7\text{H}_4\text{O}_7 + 4\text{H}_2\text{O} = 970.68$; abt 31.2% morphine.—**Powd.**—**SOL.**: 1 W., but on add. more W. it ppts, & later redissolves; 12 W. at 20° C.; 25 A.—**MELT.**: Abt 163° C.—**ACTION**: Sedat.; Hypn.—**USES**: As of morphine. Action sets in slower, but persists longer. Affects respiratory centers less. Serviceable as a preparatory narcotic in gynecological operations, & also w. scopolamine f. inducing "twilight sleep."—**Dose**: Aver., 0.03 Gm. ($\frac{1}{2}$ grn.).—**Mktd** also in 3% solut. in ampuls of 1.1 cc. (17 M) ea., & in tablets of 0.015 Gm. ($\frac{1}{4}$ grn.) ea.

Narphoquin

A solut. each cc. (15 M) of which cont's 0.012 Gm. ($\frac{1}{8}$ grn.) morphine-narcotine lactate & 0.2 Gm. (3 grn.) quinine & urea hydrochloride.—**USES**: Control of pain in childbirth; partic. useful in conjunction w. scopolamine f. inducing "twilight sleep." Its use permits only half the morphine us'dly employed to be given, & its action is enhanced by the ecboic action of quinine.—**Dose**: 1 cc. (15 M).—**Mktd** in ampuls of 1.2 cc. (18 M) ea.

Natrolite—Mineral

OCCUR.: Bohemia; France; Tyrol; Hungary; Grt Britain; Norway; U. S.; Nova Scotia.—**Named** by Werner bec. of its soda (natron) content.—**COMPOS.**: $(\text{SiO}_3)_3\text{Al}(\text{AlO})\text{Na}_2 \cdot 2\text{H}_2\text{O}$.—**CRYST. SYST.**: Rhomb.—**LUSTER**: Vitr.; somet. inclining to pearly.—**COLOR**: Wh., or colorl.—**HARDN.**: 5–5.5.—**SP. GR.**: 2.20–2.25.—**USES**: As zeolite f. softening water.

NEEDLE ANTIMONY—see Antimony Sulphide Black, Powder

NEEM BARK—see Azadirach

Neisser's Stain—For Diphtheria Bacilli

(a): 1 Gm. methylene blue, 20 cc. A., 50 Gm. glac. acet. acid, & 1000 cc. W.; (b): 1 Gm. crystal violet, 10 cc. A., & 300 cc. W.; (c): 1 Gm. chrysoidine & 300 cc. W.—The specimen is stained in a mixt. of 2 parts solut. a & 1 part solut. b, then washed w. W. & then stained w. solut. c.

NEOARSENOBENZENE—see Neoarsphenamine

Neoarsphenamine—U.S.P. X

Novarsenobenzol Billon; Arsphenamine-S; Neosalvarsan.—Consists partially of sod. diaminodihydroxyarsenobenzenemethanalsulphoxylate, $\text{NH}_2 \cdot \text{OH} \cdot \text{C}_6\text{H}_3\text{As} \cdot \text{As} \cdot \text{C}_6\text{H}_3 \cdot \text{OH} \cdot \text{NH} \cdot (\text{CH}_2\text{O})\text{OSNa}$; cont's also inert inorgan. salts; not less than 19% As.—3 neoarsphenamine = 2 arsphenamine (q.v.).—**Yellow** powd.; odorl., or slt odor; unstable in air.—**SOL.**: Eas. W. (solut. rapidly decomp., becoming dark); also sol. G.; sltly A.; alm. insol. C., E.—**Mktd** in ampuls fr.

which air is evacuated or displaced by an inert gas.—**ACTION**: Antisyph.—**USES**: As of arsphenamine.—**Dose**: Intraven., adults 0.45–0.9 Gm.; aver., 0.6 Gm. Children, 0.1–0.3 Gm. Should *not* be given subcut.—**NOTE**: For intraven. inj. abt 5–10 cc. freshly dist. cold W. should be used, & soluts, must be used *fresh*, & at not above 20°–22° C.—**TECHNIQUE OF INJECTION**: Sterilize skin w. iodine. Diss. drug in freshly *distilled & sterilized water*, apply tourniquet, insert needle in vein, as proved by free flow of blood, remove tourniquet, attach barrel of syringe to needle, being sure no air bubbles are present, & inject slowly into vein. The patient should be kept lying down f. sev'l hrs.—**N.B.**: Novarsenobenzol Billon is a brand of Neoarsphenamine U.S.P. X., manufactured by Merck & Co., Inc., under license by Les Etablissements Poulenc Frères, Paris. **Mktd** in sealed evacuated ampuls cont'g 0.15, 0.3, 0.45, 0.6, & 0.9 Gm. Novarsenobenzol respectively.

Neobornylval

Borneol, or Bornyl, Isovalerylglycolate; New Bornylval.— $(\text{CH}_3)_2 \cdot \text{CH} \cdot \text{CH}_2\text{COO} \cdot \text{CH}_2\text{COO} \cdot \text{C}_{10}\text{H}_{17} = 296.31$.—**Colorl.**, alm. odorl., tastel., oily liq.—**SOL.**: Eas. A., B., E., oils; insol. W.—**BOIL.**: 283°–285° C. w. decomp.—**SP. GR.**: 1.025–1.030.—**ACTION**: Sed.; Nervine.—**USES**: As of bornylval.—**Dose**: 0.25–0.75 cc. (4–12 M) 2–4 t.p.d.

Neocinchophen Merck

Neoquinophan (B.P.C.); Ethylmethylphenylquinoline Carboxylate.— $\text{CH}_3 \cdot \text{C}_6\text{H}_4 \cdot \text{N} \cdot \text{C}_6\text{H}_5 \cdot \text{COOC}_2\text{H}_5 [6:2:4] = 291.24$.—Pale yellow, odorl., tastel., cryst. powd.—**SOL.**: Hot A., strong acids, & v. eas. C., E.; insol. W.—**MELT.**: Not below 74° C.—**ACTION & USES**: As of cinchophen.—**Dose**: In gout, 0.5 Gm. (8 grn.) 4 t.p.d., to 1 Gm. (15 grn.) 3 t.p.d. given with much W.

Neodorm

α -Isopropyl- α -brombutyramide. — $\text{CH}_3 \cdot \text{CH}_2 \cdot \text{C}(\text{Br})\text{CONH}_2 \cdot \text{CH}(\text{CH}_3)_2 = 208.75$. — Wh. powd.; menthol odor.—**SOL.**: 150 W.; eas. A., B., E., oils, benzin.—**ACTION**: Sed.; Hypn.—**USES**: Insomnia, psychic disturbances, restlessness, etc.—**Dose**: As *hypnol.*, 0.3–0.6 Gm. (5–10 grn.); as sedat. up to 1 Gm. (15 grn.) per day in small divided doses.

Neohexal

Secondary Hexamethylenamine Sulphosalicylate.— $([\text{CH}_2]_6\text{N}_4)_2 \cdot \text{SO}_3\text{H} \cdot \text{C}_6\text{H}_3(\text{OH}) \cdot \text{COOH} \cdot \text{H}_2\text{O} = 516.48$.—**Colorl.**, cryst. powd.—**SOL.**: Eas. in abt 1 W.; diffic. A.; v. sltly E.—**MELT.**: 180°–181° C.—**ACTION**: Urinary Antisept.—**USES**: Diseases of kidneys, bladder, & urethra; also stated to be almost a specific f. grippe.—**Dose**: 1 Gm. (15 grn.) 3–6 t.p.d.—As wash f. bladder & urethra, a 0.3%–0.5% solut.

Neonal

n-Butylethylbarbituric Acid; *n*-Butylethylmalonylurea; 2,4,6-Trioxo-5-*n*-butylethylpyrimidin.— $\text{NC}_4\text{H}_9(\text{C}_2\text{H}_5)\text{C} \cdot \text{CONH} \cdot \text{CONH} \cdot \text{CO} = 226.20$.—Wh., odorl., cryst., powd.; sltly

bitter taste.—**SOL.**: Abt 5 A., 10 E.; sltly W.—**MELT.**: 124°–127° C.—**ACTION**: Hypn.; Sed.—**USES**: High nervous tension, neuralg., sciatica, neuroses, insomn., etc.; useful w. analgesics (*e.g.*, acephenetidin, amidopyrine, etc.).—**DOSE**: 0.05–0.4 Gm. ($\frac{3}{4}$ –6 grn.); mild insomn., 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.).—**MAX. D.**: 0.4 Gm. (6 grn.) p. day in divided doses.

Neo-Protosil

A non-staining, colloidal AgI combined w. a soluble protein base; abt 20% Ag.—Cream-colored granules.—**SOL.**: Eas. W.—**ACTION**: Antisep.; Bactericide.—**USES**: Purulent conjunctivitis, keratitis; rhinitis, tonsillitis, pharyngitis; also in genito-urinary diseases.—**APPL.**: 1%–40% solut's; also as 5% oint. in dis. of eye, ear, & nose.

NEOQUINOPHAN—see Neocinchophen

Neorobin

Obt. fr. chrysarobin by reduction.—Yellow or yellowish-gray powd.—**SOL.**: Sltly in E. & methyl A.; more sol. in glac. acetic acid, A., B., C.; eas. in acetone.—**ACTION & USES**: As of chrysarobin.—**APPLIC.**: 0.2%–1% oint. freshly made.

NEO-SACCHARIN—see Saccharin

NEOSALVARSAN—see Neoarsphenamine

Neosilversalvarsan

Comp'd of silversalvarsan-sodium & neosalvarsan.—Brownish-black, fairly stable powd.; abt 20% As, & abt 6% Ag.—**SOL.**: Eas. W. (solut. clear & sltly alkaline).—**ACTION**: Antisyphilitic.—**USES**: Syphilis (all stages), tabes, & paralysis, either alone or w. Hg.—**DOSE**: Adults, 0.2–0.3–0.4–0.45 Gm. (3–5–6–6½ grn.); infants, 0.01–0.015 Gm. ($\frac{1}{36}$ – $\frac{1}{4}$ grn.) per kilo of body wt.

Neo-Silvol

Comp'd of colloidal AgI (18%–22%) w. a soluble gelatin base.—Pale yellow granules.—**SOL.**: W. (up to 50%) form'g a colorl., milky, or opalesc. solut.; insol. fixed oils; slowly sol. in G.—**ACTION**: Antisep.; Germicide.—**USES**: As of other organic Ag salts; 5%–40% solut. in inflammatory infections of ear, nose, & throat; 2%–5% solut. f. irrigating sinuses; 20% solut. as abortive in acute anterior urethritis; 10% solut. in posterior urethritis & routine treatm. of anterior urethritis; 10%–50% solut. in female genitourinary tract.

NEOSOL = ARSPHENAMINE SOLUTION

NEPHRIDINE—see Epinephrine

NEROLI OIL, ARTIFICIAL—see Methyl Anthranilate

Nerolin

Methyl Betanaphtholate; Betanaphthylmethyl-ester; Yara-Yara.— $\text{CH}_3\text{O.C}_{10}\text{H}_7$ = 158.14.—Yellowish, lustr. scales, or wh. cryst. powd.—**SOL.**: A., E.—**MELT.**: 72° C.—**BOIL.**: 274° C.—**USES**: Perfumery.

NERVE ROOT—see Cyripedium

Neurine

Vinyltrimethylammonium Hydroxide.—25% aqu. solut. of an oxygen-containing ptomaine.— $\text{OH.N}(\text{CH}_3)_3.\text{CH}:\text{CH}_2$ = 103.11.—Constant decomp. prod. of decomposing animal tissue.—Very poisonous; has been used by subcut. inj. in cancer.

Neurine Hydrochloride

$\text{C}_2\text{H}_3\text{N}:(\text{CH}_3)_3\text{Cl}$ = 121.57.—Yellowish, v. hygrosc. powd.—**SOL.**: W.

Neuronal

Bromdiethylacetamide; Diethylbromacetamide.— $(\text{C}_2\text{H}_5)_2\text{CBr.CONH}_2$ = 194.06.—Wh. cryst. powd.; camph. odor; bitter, cooling taste.—**SOL.**: A., B., E., oils, abt 115 W.—**MELT.**: 66°–67° C.—**ACTION**: Hypn.—**USES**: Insomnia, mental excitement, & epilepsy.—**DOSE**: 0.5–2 Gm. (8–30 grn.).

NEUROSIN—see Calcium Glycerophosphate

Neutral Red

Toluylene Red; Dimethyldiaminotoluphenazine Hydrochloride.— $\text{C}_{15}\text{H}_{17}\text{N}_4\text{Cl}$ = 288.70.—Dark-green powd.—**SOL.**: A., & W. w. red color.—**USES**: Test f. alkalinity of W. (Cavalli), woman's milk (Moro), urea (Quagliariello), & HNO_2 (Rochaiz).—*Techn.*, as dye f. cotton; also as indic. in solut. or as paper (alkalies = yellow; acids = red; PH = 6.8–8.0).

Neutralon

"Soluble" Aluminum Silicate.—Wh., odorl., tastel. powd.—**SOL.**: Dil. HCl; also at body temp. in gastric juice; insol. W.—**ACTION**: Antisep.; Astring.—**USES**: Hyperchlorhydria, gastric ulcer, gastric hyperesthesia in chlorosis & anemia, hypersecretion, etc. The action depends on the liberation of silicic acid (which acts as a protective coating), & aluminum chloride (which acts as an astring. & antisep.).—**DOSE**: $\frac{1}{2}$ –1 teas. stirred w. W., $\frac{1}{2}$ hr. bef. meals.

NEUTROFLAVIN—see Acriflavine, Neutral

NEW APOCYNAMARIN—see Cymarin

NEW BORNIVVAL—see Neobornyval

New Cesol

n-Methylhexahydropyridinecarboxylmethyl Bromomethylate Merck.— $\text{CH}_3.\text{BrN}.\text{CH}_3.\text{C}_5\text{H}_9.\text{COOCH}_3$ = 252.12.—Colorl. cryst., or wh. cryst. powd. permanent in air.—**SOL.**: Eas. W., hot methyl A.; less sol. A.; insol. B., E.—**MELT.**: 202°–204° C.—**USES**: Chiefly in VETER. MED. inst. of arecoline in colic in horses. Also used in human med. like cesol (*q.v.*) to relieve thirst, & in scopolamine intoxications.—**DOSE**: For man, 0.05 Gm. ($\frac{3}{4}$ grn.) or less, intern. & subcut.—For horses, by inj. into muscles of the neck, aver. dose 0.8 Gm. (12 grn.); f. lighter horses, 0.5 Gm. (8 grn.); f. foals 0.25–0.5 Gm. (4–8 grn.).

NEW UROTROPIN—see Helmitol

NEW VICTORIA GREEN—see Brilliant Green; Malachite Green

"NEW" WHITE—see Barium Sulphate

NEW YELLOW—see Lead Chromate; Tropaeoline
OO

NGMOO—see Duboisia

NICARAGUA WOOD—see Pernambuco

Niccolite—Mineral

Arsenic-Nickel; Nickelin.—OCCUR.: U. S. (Col.); Newfoundland; Germany; Sweden; Pyrenees; England; Chili.—COMPOS.: NiAs, the As being partially replaced by Sb.—CRYST. SYST.: Hexag. rhombohed.—LUSTER: Metallic.—COLOR: Light copper-red w. a dark tarnish.—STREAK: Light brownish-black.—FRACT.: Brittle; v. fine-grained, smooth structure.—HARDN.: 5-5.5.—SP. GR.: 7.35-7.67.—USES: Source of nickel.

Nickel Merck—98%—99%—Cubes, or Granular

Ni = 58.68; disc. by Cronstedt in 1754.—Steel-gray metal; hard (abt like iron), v. ductile & malleable, polishable, tenacious, & magnetic.—SOL.: Slowly w. evol. of H in HCl, dil. H₂SO₄, & dil. H₃PO₄, & more rapidly in HNO₃ w. green color.—SP. GR.: 8.7-8.9.—MELT.: 1452° C.—Not affected by moist air f. a long time.—Most of its salts are green; when anhydrous, yellow.—USES: Manuf. Ni-steel, & laboratory vessels; Ni-plating; manuf. electrolytes & storage batteries; as catalyzer f. reduc. organ. substcs w. H; magnets f. telegraph; lightning-rod tips; coins & medals; alloys such as argantan, new-silver, tiers-argent, ferro-nickel, Chinese silver, German silver.

do. Merck—Sheets

Nickel Acetate Merck—Nickelous—C.P.

Approx. Ni(C₂H₃O₂)₂ + 4H₂O = 248.81.—Green, cryst. mass or powd.; acetic odor.—SOL.: W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.030%
Alkalies & Earths.....	0.2%
Cobalt (Co).....	0.300%
Copper (Cu).....	0.040%
Iron (Fe).....	0.005%

USES: Chem., as of Nickel Sulphate, C. P.—The techn. grade is used as a mordant in printing cotton goods; in dyeing textiles.

NICKEL, ANTIMONIAL }
NICKEL ANTIMONYGLANCE } see Ullmannite

Nickel Arsenate—Nickelous

Ni₃(AsO₄)₂ = 453.96.—Yellowish-green powd.—SOL.: In acids; insol. W.—USES: As catalyzer in hardening fats to be used in making soaps.

NICKEL, ARSENICAL—see Gersdorffite

Nickel Benzoate—Nickelous

Ni(C₇H₅O₂)₂ + 3H₂O = 354.88.—Light-green, odorl. powd.—SOL.: NH₄OH; diffic. W.; decomp'd by acids.

Nickel Bromide Merck—Nickelous

NiBr₂ + 3H₂O = 272.57.—Yellowish-green, v. hygrosc., deliques. cryst.—SOL.: A.; eas. (0.8) W.—ACTION: Hypnot.; Nerve Sed.—USES: Epilepsy, nervous insomnia.—DOSE: 0.3-0.5 Gm. (5-8 grn.); 0.06-0.3 Gm. (1-5 grn.) (Mart.-West).—MAX. D.: 0.5 Gm. (8 grn.) single, & 1.5 Gm. (23 grn.) p.d.

Nickel Carbonate Merck—C.P.

Approx. NiCO₃.2Ni(OH)₂ + 4H₂O = 376.14; compos. variable.—Light-brown powd.—SOL.: Dil. mineral acids w. evol. of CO₂, & in solut's of NH₄ salts; insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.004%
Nitrate (N ₂ O ₅).....	0.020%
Sulphate (SO ₃).....	0.050%
Alkalies & Earths.....	0.5%
Cobalt (Co).....	0.03%
Copper (Cu).....	0.030%
Iron (Fe).....	0.050%

USES: Medic., intern., anemia.—Techn., manuf. other Ni salts; nickel plating; manuf. soap; catalyzer in hardening fats; in ceramic colors & glazes.—DOSE: 0.12 Gm. (2 grn.).

Nickel Chloride Merck—C.P.

NiCl₂ + 6H₂O = 237.70.—Green, cryst. powd.—SOL.: Eas. W., A.

MAXIMUM OF IMPURITIES

Sulphate (SO ₃).....	0.010%
Alkali & Earths.....	0.2%
Cobalt (Co).....	0.300%
Copper (Cu).....	0.020%
Iron (Fe).....	0.010%

USES: As test for sulphocarbonates (Mermet).

do. —Purified, Gran.

DESCRIPT., SOL., ETC.: As preced'g.—USES: Intern., leucorrhea, anemia, & amenorrh.—Techn., in nickel plating cast zinc; manuf. sympathetic ink; as absorbent f. NH₃ in military & gas masks.—DOSE: 0.12 Gm. (2 grn.).

do. Merck—Cryst.

FORMULA, PROPERTIES & SOL.: As of preceding.

Nickel Citrate—Nickelous

Ni₃(C₆H₅O₇)₂ + 14H₂O = 806.34.—Light-green deliques. powd.—SOL.: W.—USES: Techn., in nickel-plating.

Nickel Cyanide Merck—Nickelous

Ni(CN)₂ = 110.71 + abt 20%-25% aq.—Apple-green powd.—SOL.: Eas. NH₄OH, alkali cyanides, or solut. amm. carbonate; sltly d.l. acids; insol. W.—USES: Galvano-nickel plating.

NICKEL GLANCE—see Gersdorffite

Nickel Hydroxide Merck—Nickelous

"Green Nickel Oxide"; "Nickel Oxide, Hydrated."—Ni(OH)₂ + H₂O = 110.71.—Apple-green powd.—SOL.: Acids, NH₄OH & soluts. NH₄ salts; insol. W.

Nickel Iodide Merck—Nickelous

$\text{NiI}_2 = 312.52 + \text{aq.}$ —Black, cryst. powd.—
SOL.: W., & in A. w. green color.

NICKEL MONOXIDE—see Nickel Oxide

Nickel Nitrate Merck—Nickelous—C.P.

$\text{Ni}(\text{NO}_3)_2 + 6\text{H}_2\text{O} = 290.79$.—Green, deliques.,
somewh. moist, cryst.—SOL.: Eas. (0.65) W.,
A.—MELT.: 57°C.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.003%
Sulphate (SO_3)	0.010%
Alkalies & Earths	0.2%
Cobalt (Co)	0.300%
Copper (Cu)	0.020%
Iron (Fe)	0.010%

USES: *Medic.*, proposed f. use as an antid. in
poison. by HCN.—*Techn.*, in nickelpating.—
CAUT.: Keep well stoppered.

Nickel Oxalate—Nickelous

$\text{NiC}_2\text{O}_4 + 2\text{H}_2\text{O} = 182.72$.—Light green powd.
—SOL.: In mineral acids, & in soluts of $(\text{NH}_4)_2\text{SO}_4$, NH_4Cl , NH_4NO_3 & ammon. succinate; v.
sltly boil. solut. oxalic acid; insol. W.

Nickel Oxide—Nickelous

Nickel Mon-, or Prot-, oxide.— $\text{NiO} = 74.63$.—
Green powd.; yellow when hot.—SOL.: Acids.—
USES: *Techn.*, manuf. nickel salts, & painting
on porcelain.

Nickel Oxide Merck—Black—Powd.

Nickel Per-, or Sesqui-, oxide.—Compos'n vari-
able.—Gray-black powd.—SOL.: Acids.—
USES: Manuf. oxygen.

"NICKEL OXIDE, GREEN" } see Nickel Hydrox-
NICKEL OXIDE, HYDRATED } ide

NICKEL PEROXIDE—see Nickel Oxide, Black

Nickel Phosphate—Nickelous, Normal

$\text{Ni}_3(\text{PO}_4)_2 + 7\text{H}_2\text{O} = 492.23$.—Light-green
powd.—SOL.: Acids, NH_4OH ; insol. W.—
USES: On ignition yields "nickel yellow," a val-
uable yellow pigment used in oil- & water-
colors; nickel plating iron, copper, brass, & zinc.

NICKEL PROTOXIDE—see Nickel Oxide

NICKEL SESQUIOXIDE—see Nickel Oxide, Black

NICKEL STIBENE—see Ullmannite

Nickel Sulphate Merck—C.P.

$\text{NiSO}_4 + 6\text{H}_2\text{O} = 262.84$.—Emerald-green;
transpar. cryst.; sweet, astring. taste.—SOL.: 3
W., abt 8 methyl A.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Alkali & Earths	0.30%
Cobalt (Co)	0.300%
Copper (Cu)	0.010%
Iron (Fe)	0.020%
Zinc (Zn)	0.080%

USES: *Chem.*, as test f. glucose (Duyk) &
albumoses (Fittipaldi; Gnezda).—*Medic.*, as
Tonic; Sed.; Soporific; Antiparasitic; *intern.*,
periodic headache, also in chlorosis, amenorrh.,
chorea, acne, nervous disturb., chron. facial
neuralg., migraine, chron. enteritis, epilep., &
neurasth; *extern.*, skin dis. (impetigo, trico-
phytosis, acne, pityriasis, eczema marginalis),
as wash or paint in 1%–2% solut.—*Techn.*, as
germicide in 1:1900 solut.—DOSE: 0.03–0.06
Gm. ($\frac{1}{2}$ –1 grn.) 3–4 t.p.d.; doses of 0.2–0.4
Gm. (3–6 grn.) cause vomiting.—CAUT.: Keep
well stoppered.

do. Merck

USES: *Techn.*, in nickel-plating, as mordant in
dyeing & printing fabrics; blackening zinc &
brass; as pigment.

Nickel & Ammonium Chloride

$\text{NiNH}_4\text{Cl}_3 = 183.10 + \text{aq.}$ —Yellow powd.—
SOL.: W.—USES: *Techn.*, electro-plating metal-
lic objects; also as mordant in dyeing.

Nickel & Ammonium Sulphate Merck—Re-agent

$\text{NiSO}_4.(\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O} = 394.98$.—Bluish
green cryst.—SOL.: Abt 4 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Alkali & Earths	0.2%
Cobalt (Co)	0.05%
Copper (Cu)	0.002%
Iron (Fe)	0.005%
Zinc (Zn)	0.080%

Nickel & Ammonium Sulphate Merck—C.P.

$\text{NiSO}_4.(\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O} = 394.98$.—Mono-
clinic, bluish-green prisms.—SOL.: Abt 4 W.;
pract. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Alkali & Earths	0.3%
Cobalt (Co)	0.300%
Copper (Cu)	0.005%
Iron (Fe)	0.020%
Zinc (Zn)	0.080%

do. Merck—Cryst.

USES: Salt most used f. electroplating.

Nickel & Cobalt Sulphate—Cobalto-nickelous

$\text{NiSO}_4.\text{CoSO}_4 + 14\text{H}_2\text{O} = 561.99$.—Reddish-
brown, cryst. mass.—SOL.: Eas. W.—USES:
Mordant in dyeing & printing; blackening Zn
& brass.

Nickel & Potassium Cyanide—Nickelous

$\text{Ni}(\text{CN})_2.2\text{KCN} = 240.93 + \text{aq.}$ —Orange-yel-
low, cryst. powd.—SOL.: W.

Nickel & Potassium Sulphate

$\text{NiSO}_4.\text{K}_2\text{SO}_4 + 6\text{H}_2\text{O} = 437.10$.—Bluish-green
cryst.—SOL.: Eas. W.

Nickel-Plating Salt

Mixt. NiSO_4 2, & H_3BO_3 1.—USES: Nickel-
plating metals. A bath requires abt 1 kilo
(2.2 lb.) of the salt dissolved in 10–12 liters

(22–26.4 pints) warm W. The solut. keeps for a long time, & is used w. a current of 3 volts (Langbein).

NICKELIN—see Niccolite

NICOTIA—see Nicotine

Nicotine Merck

2-Betapyridyl- α -*n*-methylpyrrolidin; Nicotia.— $\text{N.C}_5\text{H}_4\text{CH}(\text{CH}_2)_3\text{N}(\text{CH}_2) = 162.18$.—Alkaloid fr. lvs *Nicotiana Tabacum*, L. (Tobacco).—Colorl. to yellowish, oily liq.; grad. brown on expos.; exceed. acrid, burning taste (dangerous to taste).—SOL.: v. eas. W., A., C., E., petrol. E., oils, &c.—BOIL.: Abt 247° C. w. part. decomp.—SP. GR.: Abt 1.015 at 15° C.—ACTION: Local Irritant; Sed.—USES: Intern. (us'y as tartrate) in functional disturb. of heart, & chron. dermatoses.—Extern., as inj., 15–30 cc. (4–8 fl. dr.) of a solut. of 0.6 Gm. (10 grn.) nicotine in 300 cc. (10 fl. oz.) W. & 30 cc. (1 fl. oz.) glyc., twice daily, in paral. of bladder. Antid. to tetanus & strychnine poison.—DOSE: 0.0025–0.03 Gm. ($\frac{1}{95}$ – $\frac{1}{2}$ grn.), B.P.C.—ANTID.: Emetics, stomach siphon, tannic acid (0.3 Gm. [5 grn.] ev. 15 min.), strychnine, extern. warmth, friction, brandy, ether & camphor (hypoderm.), &c.—CAUT.: Poison!

do. —Crude

Abt 90% alkaloid.—Brown liq.—SOL.: W., A., C., E.—ACTION: Antiparasitic.—USES: Exterminating plant lice (using a 1.33% solut.); in itch-mite of sheep (in 13% solut. dil. w. 80 vol. W.; to destroy the itch-mite ova, the 13% solut. of nicotine is dil. w. 50 vol. W.).

NICOTINE BITARTRATE—see Nicotine Tartrate

Nicotine Hydrochloride

$\text{C}_{10}\text{H}_{14}\text{N}_2\cdot 2\text{HCl} = 235.07$.—Wh., deliq. cryst.—SOL.: W., A.

Nicotine Salicylate

$\text{C}_{10}\text{H}_{14}\text{N}_2\cdot \text{C}_7\text{H}_6\text{O}_3 = 300.26$.—Wh. cryst.—SOL.: Eas. W., A.—MELT.: 117°–118° C.—USES: Scabies, acute & chron. ecz., syphilis, & o. parasitic, acute & chron. itching skin dis., in 0.1% oint. w. lanum, or diss. in traumaticin.—In VETER. MED. in 1%–2% oint. in sarcopes & acarus itch; also in nonparasitic ecz., favus, herpes, etc.

Nicotine Tartrate

Nicotine Bitartrate.— $\text{C}_{10}\text{H}_{14}\text{N}_2(\text{C}_4\text{H}_6\text{O}_6)_2 + 2\text{H}_2\text{O} = 498.35$.—Reddish-wh. cryst.—SOL.: A., v. eas. W.—MELT.: 88°–90° C.—Pref. to o. nicotine salts as more solub. & stable.—USES: As of o. nicotine salts.—DOSE: 0.001–0.003 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ grn.), B.P.C.

NIGHTSHADE, DEADLY—see Belladonna

NIGROSINE—see Induline, Alcohol-soluble, or Water-soluble

Nigrosine—Alcohol-soluble

Black powd.—SOL.: A.—USES: *Techn.*, dyeing silk, wool, leather, &c., blue-black color.—See also Induline, Alcohol-soluble.

do. —Benzin-soluble

Blue Black.—Black powd. or lumps.—SOL.: Benzin.—USES: *Techn.*, in black lacquers, stains, varnishes, &c.

do. —Water-soluble

Sod. salts of var. spirit-soluble indulinsulphonic acids.—Black mass or powd.—SOL.: W. & A.—USES: Nigrosine ink & dyeing & staining wood, wool, silk & leather. Strong aqu. solut. used f. stain, bacteriol. sections after wash. in A.—See also Induline, Water-soluble.

Nikiforoff's Borax-Carmine

15 Gm. carmine, 500 cc. 5% aqu. solut. $\text{Na}_2\text{B}_4\text{O}_7$. & NH_4OH , the whole boiled down to 250 cc., & acetic acid added to just discharge the cherry-red color.—USES: Staining nuclei & whole tissue.

NIM BARK—see Azadirach

Ninhydrin

Triketohydrindenehydrate.— $\text{C}_6\text{H}_4(\text{CO})_2\text{C}(\text{OH})_2 = 178.09$.—Colorl. cryst.—SOL.: Eas. W.—MELT.: 239°–240° C.; becomes red at 125° C., & swells at 139° C.—USES: Test f. albumin, peptone, polypeptids, & amino acids; partic. f. demonstrating presence of specific proteolytic ferments in blood serum, partic. in biologic diagnosis of pregnancy (Abderhalden).

NIOBÉ OIL—see Methyl Benzoate

NIOBITE—see Columbite

NIOBIUM PENTOXIDE—see (Acid) Columbic Anhydride

NIOBIUM & SALTS—see under Columbium

NIOFORM—see Vioform

Nirvanol

Phenylethylhydantoin.— $(\text{C}_6\text{H}_5)(\text{C}_2\text{H}_5)\text{C}(\text{CONH})\text{NHCO} = 204.17$.—Colorl., cryst. needles.—SOL.: 1650 cold, 110 boil., W., 20 A.—MELT.: 199°–200° C.—ACTION: Hypnotic; Sedative.—DOSE: *Hypnotic*, 0.25–1 Gm. (4–15 grn.); *sedative*, 0.5–1 Gm. (8–15 grn.) per day. For intramusc. inj. the sodium salt is used, as it is very easily soluble in W.

NITER—see Potassium Nitrate; Sodium Nitrate

NITON—see Radon

m-Nitraniline

$\text{C}_6\text{H}_4(\text{NO}_2)\text{NH}_2[3:1] = 138.09$.—Yellow need. or powd.—SOL.: A.; E.; sltly W.—MELT.: 114° C.—BOIL.: 285° C.—USES: Color test f. pine wood; manuf. dyes & intermediates.

o-Nitraniline

$\text{C}_6\text{H}_4(\text{NO}_2)\text{NH}_2[2:1] = 138.09$.—Orange-yellow cryst.—SOL.: A., E.; hot W.—MELT.: 71° C.—USES: Test f. lignin (Wheeler); manuf. various dyes.

p-Nitraniline

$\text{C}_6\text{H}_4(\text{NO}_2)\text{NH}_2[4:1] = 138.09$.—Yellow, lustr. need.—SOL.: A., E., sltly hot W.—MELT.: 147° C.—BOIL.: 335° C.—USES: Test f. lignin (Bergé; Wheeler), & f. albumoses, NH_3 , bile

pigments, uric acid, saccharin, & salicylic acid (Riegler); *techn.*, manuf. dyes & intermediates.

***o*-Nitranisol**

Orthonitrophenol Methyl Ester.— $C_6H_4(NO_2)(OCH_3)[2:1] = 153.10$.—Fr. *o*-nitrophenol, KOH, & CH_3I by dist'n.—Yellowish to light-brown oily liq. at ord. temp.—SOL.: A., E.—MELT.: $9^\circ C$.—BOIL.: $277^\circ C$. at 734 mm.—USES: Organic synthesis.

***m*-Nitrobenzaldehyde**

$C_6H_4(NO_2).CHO[3:1] = 151.08$.—Fr. benzaldehyde, KNO_3 , & fum. H_2SO_4 .—Yellowish, cryst. powd.—SOL.: A., C., E.—MELT.: $58^\circ C$.—BOIL.: $164^\circ C$. at 23 mm.—USES: Manuf. various dyes.

***o*-Nitrobenzaldehyde**

$C_6H_4(NO_2).CHO[2:1] = 151.08$.—Fr. *o*-nitrocinnamic acid by oxid'n w. HNO_2 or $KMnO_4$.—Light-yellow need.—SOL.: Eas. A., B., E.; sltly W.—MELT. $44^\circ C$.—USES: Test f. urea (Luedy) & acetone (Penzoldt); *techn.*, as starting point in synthesis of indigo.

***p*-Nitrobenzaldehyde**

$C_6H_4(NO_2).CHO[4:1] = 151.08$.—Fr. *p*-nitrocinnamic acid by oxid'n w. $KMnO_4$.—Light-yellow cryst.—SOL.: A., B.; hot W. & E.—MELT.: $106^\circ C$.—USES: Test f. albumin, indol, & skatol (Steensma); manuf. dyes.

Nitrobenzene Merck—Pure

Nitrobenzol; Essence, or Oil, of Mirbane.— $C_6H_5NO_2 = 123.08$.—Fr. C_6H_6 by HNO_3 & H_2SO_4 .—Light-yellow, oily liq.; odor of volatile oil of almonds.—SOL.: Eas. A., B., E., oils; alm. insol. W.—BOIL.: $210^\circ C$.—SP. GR.: 1.208 at $15^\circ C$.—MELT.: 5° – $6^\circ C$.—USES: Formerly used in scabies; dangerous to use.—*Techn.*, perfumery inst. of volat. oil almonds, & in aniline industry in manuf. fuchsine, nitrotoluene, &c.; also as test f. S (Brunner), glucose (Jaworski; Ventre), cytosine (Rauwerda), & Ca (White).—CAUT.: Poison! Never use internally.—ANTID.: Stomach siphon, emetics, artif. respir., hot baths w. cold douches to the head & spine, stimulants (ammon. carbonate; strychnine, atropine, etc., subcut.); alcohol & oils are to be avoided.

do. —From Crystallizable Benzene

PROPERTIES, SOL., etc.: As of preceding

do. —Technical

USES: *Techn.*, in perfumery, soaps, shoe polishes, manuf. dyes, intermediates, etc.

NITROBENZOL—see Nitrobenzene

NITROCARBINOL } see Nitromethane
NITROCARBOL }

NITROCHLOROFORM—see Chlorpicrine

***m*-Nitrodimethylaniline**

$C_6H_4(NO_2).N(CH_3)_2 = 166.14$.—Fr. dimethylaniline by HNO_3 & conc. H_2SO_4 .—Red cryst.—MELT.: $61^\circ C$.—USES: Manuf. dyes.

NITRODIOXYQUINOLINE—see Acid Quinolic

NITROERYTHRIT—see Erythrol Tetranitrate

Nitroethane

$C_2H_5NO_2 = 75.06$.—Fr. C_2H_5I & $AgNO_2$.—Oily liq.; pleas. odor.—SOL.: A., C., E.; alm. insol. W.—SP. GR.: 1.056 at $15^\circ C$.—BOIL.: $114^\circ C$.

Nitrogen

N = 14.008.—Colorl., odorl., tastel. gas; constitutes abt 77.55% by wt, or 78.1% by vol., of the atmosphere.—SOL.: Sltly W. (abt 1:45).—SP. GR.: 0.9674 (air = 1).—MELT.: $-210^\circ C$.—BOIL.: $-195^\circ C$.—USES: Obt'd fr. the air in manuf. HNO_3 , NH_3 , cyanamide, etc.; filling high-temperature thermometers, incandesc. bulbs; preserv'g food products fr. oxidation.

Nitrogen Monoxide—U.S.P. X

Nitrous Oxide.— $N_2O = 44.02$.—Colorl., sltly odorous gas; somewhat sweetish taste.—SOL.: Eas. W. (abt 1.3 vol. in 1 vol. W. at $25^\circ C$).—SP. GR.: 1.53 (air = 1).—MELT.: $-102.4^\circ C$.—BOIL.: $-89.4^\circ C$.—USES: Formerly employed chiefly in dental surgery, but now also employed in conjunction w. oxygen as a general anesthetic in all kinds of surgical operations.

Nitroglucose

Fr. glucose by HNO_3 & H_2SO_4 .—Marketed in 1:20 alcoholic solut., because substce v. explosive.—ACTION: Arterial Stimulant.—USES: Epilepsy, angina pectoris, & cardiac weakness.—DOSE: Of 5% aqu. solut., 0.015–0.06 cc. ($\frac{1}{4}$ –1 M).

NITROGLYCERIN—see Spirit Glyceryl Trinitrate

Nitroguanidine

$NH:C(NHNO_2).NH_2 = 104.07$.—Fr. guanidine sulphocyanate, conc. H_2SO_4 , & HNO_3 .—Yellowish cryst. powd.—SOL.: Hot W., eas. solut. KOH; sltly cold W. & A.; insol. E.—MELT.: Abt $225^\circ C$. w. decompos.

Nitromethane

Nitrocarbol; Nitrocarbinol.— $CH_3.NO_2 = 61.04$.—Fr. CH_3I & $AgNO_2$.—Colorl. liq.; peculiar odor; grad. darkens.—SOL.: A., E.; sltly W.—SP. GR.: 1.144 at $15^\circ C$.—BOIL.: $101^\circ C$.

NITROMETHYLAMINOBENZENE—see *m*- & *o*-Nitro-Toluidine

NITROMETHYLENE GREEN—see Methylene Green

Nitron

1.4. Diphenyl-3.5. endanilodihydrotriazol.— $C_6H_5.N.CH:(N.C_6H_5)_2.C:N = 312.27$.—Lustr., yellow leaflets, or powd.—SOL.: A., B., acetone, C., ethyl acetate; diffic. E.; insol. W.; the A. solut. undergoes part. decomp. (indicated by red color).—MELT.: $189^\circ C$. w. decomp.—USES: As 10% solut. in 5% acetic acid for determ. NO_3 w. which it forms a v. insol. comp'd; also as test f. picric acid (Busch-Blume).—CAUT.: Keep solut. in well-stopp. bots protected fr. light.

α -Nitronaphthalene

$C_{10}H_7NO_2 = 173.11$.—Fr. naphthalene by H_2SO_4 & HNO_3 .—Yellow cryst.—SOL.: A.; v. eas. C., E., CS_2 .—MELT.: 56° – 58° C.—BOIL.: 304° – 307° C.

do. —Technical

Yellow, crumbly mass.—SOL.: A., paraffin oil, petroleum, &c.—USES: Deblooming oils, partic. petroleum (2–3 parts suffice for 1000 parts oil); manuf. dyes & intermediates.

3.Nitropentane

$C_2H_5.CH(NO_2).C_2H_5 = 117.12$.—Fr. isoamyl iodide & $AgNO_2$.—Colorl. liq.; fusel oil odor.—SOL.: A., E.—BOIL.: 152° – 155° C. at 746 mm.—SP. GR.: 0.9575 at 0° C.—ACTION: Causes violent spasms, intestinal & vesical contractions, salivation, & pupillary enlargement, but no vasodilation.

***m*-Nitrophenol**

$C_6H_4(NO_2)OH[3:1] = 139.08$.—Fr. *m*-nitraniline, H_2SO_4 , & $NaNO_2$.—Yellow cryst.—SOL.: Hot W., A., B., alkalies.—MELT.: 93° C.—BOIL.: 194° C. at 70 mm.—USES: As indic.; f. prep'g the stock solut. accord. to Michaelis a 0.3% aqu. solut. is used; $PH = 6.3$ – 9.0 .

***o*-Nitrophenol**

$C_6H_4(NO_2)OH[2:1] = 139.08$.—Fr. phenol, $NaNO_2$, & H_2SO_4 .—Light-yellow need. or prisms; pecul. arom. odor.—SOL.: A., E., alkalies; eas. hot, sltly cold, W.—MELT.: Abt 45° C.—BOIL.: 214° C.—Volatilizes w. steam.—USES: Indic. in 2% alcoh. solut. (alkalies = red; acids = yellow; color change not sharp; cannot be used where CO_2 present); partic. useful in W. analysis; test f. glucose (Jaworowsky), & K (Teeter); manuf. dyes & intermediates; important intermediate in organic synthesis.

***p*-Nitrophenol**

$C_6H_4(NO_2)OH[4:1] = 139.08$.—Fr. phenol, $NaOH$, $NaNO_2$, & H_2SO_4 .—Colorl. to sltly yellowish cryst.—SOL.: W.; eas. A., C., E.—MELT.: Abt 114° C.—USES: As indic. in the Sørensen "buffer" method a solut. of 0.4 Gm. in 60 cc. W. & 940 cc. A. is used (alkalies = yellow; acids = colorless; color change not sharp, & is greatly affected by CO_2); f. the stock solut. accord to Michaelis a 1% aqu. solut. is used; $PH = 4.7$ – 7.9 .—*Techn.*, manuf. dyes & intermediates.

o-NITROPHENOL METHYL ESTER—see *o*-Nitranisol

***p*-Nitrophenylhydrazine**

$NO_2.C_6H_4.NH.NH_2 = 153.11$.—Fr. *p*-nitraniline, HCl , & $NaNO_2$ by Na_2SO_3 & K_2CO_3 .—Orange-red leaflets or need.—SOL.: A., C., E., ethyl acetate; alm. insol. W., B.—MELT.: 157° C.—USES: Test f. acrolein (Behrens), aliphatic aldehydes (Dakin), acetone (Moller; Hyde), & formaldehyde (Hyde); manuf. intermediates.

p-NITROPHENYL-METHYL-ISONITRO-PYRAZOLON — see Acid Picrolonic

 α -Nitropropane

$CH_3.CH_2.CH_2.NO_2 = 89.08$.—Fr. C_3H_7I by $AgNO_2$.—Colorl. liq.—SOL.: A., E.—SP. GR.: 1.011 at 15° C.—BOIL.: 131° C.

Nitrosodiethylin

Diethylnitrosamine.— $(C_2H_5)_2N(NO) = 102.12$.—Fr. diethylamine nitrate by heat.—Slty yellow liq.—SOL.: A., E.—SP. GR.: 0.953 at 15° C.—BOIL.: 177° C.

***p*-Nitrosodimethylaniline**

$C_6H_4(NO)N(CH_3)_2[1:4] = 150.14$.—Fr. dimethylaniline by HCl & $NaNO_2$.—Green plates or leaflets.—SOL.: A., E.—MELT.: 85° C.—Manuf. dyes & intermediates; accelerator in vulcanization; printing fabrics.

Nitrosodimethylin

Dimethylnitrosamine.— $(CH_3)_2N(NO) = 74.07$.—Fr. dimethylamine, H_2SO_4 , & $NaNO_2$, by dist'n.—Yellow liq.—SOL.: A., E.—BOIL.: 148° C. at 724 mm.

***p*-Nitrosodiphenylamine**

$NO.C_6H_4.NH.C_6H_5 = 198.16$.—Fr. diphenylnitrosamine in absol. A., by HCl gas.—Green cryst. w. bluish luster, or steel-blue need.—SOL.: Cold A.; v. eas. hot A., B., C., & glacial acetic acid, w. brown color; slty W.; also sol. in alkalies w. red color, & solut. decomp. by CO_2 ; also sol. in conc. H_2SO_4 w. red color changed to violet by heat.—MELT.: 143° C.—USES: Accelerator in vulcaniz'g rubber; intermediate in manuf. dyes.

Nitrosoethylaniline

Ethylphenylnitrosamine.— $C_6H_5.N(C_2H_5).NO = 150.14$.—Fr. ethylaniline, HCl , & HNO_2 .—Yellow to light-brown liq.—SOL.: A.—USES: Manuf. intermediates.

Nitroso- β -naphthol

Alphanitrosobetanaphthol.— $C_{10}H_6(NO)OH = 173.11$.—Fr. β -naphthol, $NaOH$, & $NaNO_2$, by H_2SO_4 .—Orange-brown cryst.—SOL.: B., E., hot A., glac. acetic acid; diffic. boil'g, insol. cold, W.—MELT.: 109° C.—USES: Quantitative separ. Ni & Co ; test f. Fe (Jolles), metals (Knorre), & borax (Reichard).

***p*-Nitrosophenol**

Quinone Monoxime; Paranitrosophenol.— $C_6H_4(NO)OH$, or $O.C_6H_4N.OH = 123.08$.—Fr. phenol, $NaOH$, & $NaNO_2$, by H_2SO_4 .—Brownish or greenish leaflets.—SOL.: A., E., acetone, aqu. alk. solut.—Decomp. abt 125° C., without melt.—USES: Manuf. various dyes, & intermediates.

***m*-Nitrotoluene**

$C_6H_4.CH_3(NO_2)[1:3] = 137.10$.—Fr. nitrotoluidine in A., by H_2SO_4 & $NaNO_2$.—Yellow cryst., or liq. above 16° C.—SOL.: A., E., B.—SP. GR.: 1.164.—BOIL.: 230° C.—USES: Manuf. dyes.

***o*-Nitrotoluene—Liquid**

$C_6H_4.CH_3(NO_2)[1:2] = 137.10$.—Fr. toluene by H_2SO_4 & HNO_3 .—Yellowish liq.—SOL.: A., B., C., E. & petroleum E.—SP. GR.: 1.164–1.168

at 15° C.—BOIL.: 221° C.—MELT.: -15° C.—
USES: Manuf. dyes & explosives.

p-Nitrotoluene

$C_6H_4.CH_3(NO_2)[1:4] = 137.10$.—Fr. toluene & HNO_3 .—Yellowish cryst.—SOL.: A., B., E.—MELT.: 54° C.—BOIL.: 234°–238° C.—USES: Manuf. dyes, various intermediates, & celluloid & o. plastics.

m-Nitro-*o*-toluidine

Nitromethylaminobenzene.— $C_6H_3.CH_3[1].NH_2[2].NO_2[3] = 152.12$.—Reddish-yellow, lust. need.—SOL.: Eas. A., B., C., E.; sltly boil. W.—MELT.: 96°–97° C.—USES: Manuf. dyes.

o-Nitro-*o*-toluidine

Nitromethylaminobenzene.— $C_6H_3.CH_3[1].NH_2[2].NO_2[5] = 152.12$.—Yellow powd.—SOL.: Eas. A., B., E., glac. acetic acid; somewh. in W.—MELT.: 128°–129° C.—USES: Manuf. dyes.

m-Nitro-*p*-toluidine

$C_6H_3(CH_3)(NO_2)NH_2[1:3:4] = 152.12$.—Fr. nitro-*p*-acetotoluid, A., & KOH by boil.—Red need. or prisms.—SOL.: A.—MELT.: 114° C.—USES: Manuf. dyes.

NITROUS OXIDE—see Nitrogen Monoxide

m-Nitroxylene

$C_6H_3(CH_3)_2NO_2[1:3:4] = 151.14$.—Fr. *m*-xylylene by nitration.—Light-yellow liq.—BOIL.: 238°–244° C.—SP. GR.: 1.126 at 17° C.—USES: Manuf. xylidine.

NOAH'S ARK—see Cypripedium

NOBLE LAUREL—see Laurel Berries

NOBLE LIVERWORT—see Hepatica

Noctal

Isopropylbrompropenylbarbituric Acid.— $C_{10}H_{13}O_3N_2Br = 289.09$.—Colorl. odorl., sltly bitter cryst.—SOL.: Eas. A. acetone; diffic. in W., B., C.—MELT.: 178° C.—ACTION: Hypnotic.—USES: Nervous insomnia & in insomnia due to overwork, neurasthenia, etc.—DOSE: 0.1–0.3 Gm. ($1\frac{1}{2}$ –5 grn.).

Nosophen

Tetraiodophenolphthalein; Iodophen.— $(C_6H_2I_2OH)_2.C_6H_4.CO.O = 821.86$.—Light-yellow, odorl., tastel. powd.; 61.7% I.—SOL.: Alkal. solut., C., E.; sltly A., insol. W., & acids.—MELT.: 255° C., w. decomp.—ACTION: Antiseptic, like iodoform.—USES: *Intern.*, in acute & chron. gastro-intest. catarrh.—*Extern.*, chronic & acute dis. of middle ear, ozena, rhinitis, balanoposthitis, eczema, diphth., & local syphil. affect. in the mouth.—DOSE: 0.3–0.5 Gm. (5–8 grn.).—APPL.: Powd., pure, or diluted.

NOUMEITE—see Garnierite

Novalgin

Methylmelubrin; Sodium Phenylidimethylpyrazolomethylaminomethane Sulphonate.— $C_{11}H_{11}N_2O.NCH_3.CH_2O.SO_2Na = 333.28$.—Alm. colorl., odorl., cryst. powd.—SOL.: Eas. W., methanol; diffic. A.; insol. E.—ACTION, USES, & DOSES: As of melubrin.

Novargan

Silver Proteinate; 10% Ag.—Fine yellow powd.—SOL.: W.—ACTION: Antisept.; Bactericide.—USES: As of o. organic silver comp'ds in gonorrh., etc.—APPL.: 0.5 cc. (8 M) of a 15% solut. instilled into urethra.—CAUT.: Soluts must not be heated or exposed to light.

Novarial

Ovariin Soluble Merck.—Ovarial prep'n obt. by a special process & freed fr. superfluous inert substcs; 1 pt = abt 10 pts fresh ovarian substce.—USES: Normal or premature climacteric disorders, disturbances following surgical or roentgen-ray castration, climacteric obesity, amenorrh., dysmenorrh., anemia, chlorosis, etc.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) 3 t.p.d.

do. —Tablets, 0.05 Gm. Each

NOVARSENOBENZOL—see Neoarsphenamine

Novaspirin

Methylenecitrylsalicylic Acid; Citrosalic Acid.— $CO.CO.O.CH_2(CH_2.CO_2.C_6H_4.COOH)_2 = 444.23$.—Grayish-wh., odorl. cryst. powd.; acidul. taste.; 62% salicylic acid.—SOL.: Eas. A.; less sol. C., & E.; alm. insol. W.—MELT.: when dried, at 153°–154° C.—USES: As of aspirin & salicylates; in influenza, headaches, nervous dysmenorrh.—DOSE: 0.6–1 Gm. (10–15 grn.) sev'l t.p.d.

Novasural

Merbaphen.—Double salt of sodium mercury-chlorophenoxyacetate & diethylmalonylurea.— $(NaOOCCH_2.O).ClC_6H_3Hg(CO.NCO.C.[C_2H_5]_2CONH) = 591.28$.—Wh., cryst., odorl. powd.; 33.9% Hg.—SOL.: W.—ACTION: Antisyph.; Diuretic; Alterative.—USES: Given us'y as neutral intramusc. inj. in syphilis (partic. primary).—DOSE: As diur., 1–2 cc. (15–30 M) of 10% solut. intramusc. or intraven.—As antisyph., 1–2 cc. (15–30 M) of 10% aq. solut. 1–2 times weekly intramusc.

NOVATOPHAN = Neocincophen

NOVATROPINE—see Homatropine Methylbromide

Noviform

Tetrabrompyrocatechin - Bismuth.— $Bi(C_6Br_4O)_2OH = 649.72$.—Yellow, odorl., tastel. powd.; 32% Bi.—SOL.: Slty in A., E.; insol. W.—USES: As of iodoform, alone or w. talc as dust.-powd. f. wounds; in 10%–20% oint. in skin dis.; 3%–10% oint. in ophthalm.

NOVOCAINE = Procaine Hydrochloride

Novotestal

Prep'd fr. the testes of steers; 1 part = 10 pts fresh gland.—Mktd in tablets each 0.3 Gm. = 3 Gm. fresh substce.—ACTION: Gen'l Tonic.—USES: Impotence, senile weakness, neurasthenia, diabetes, tuberculosis, tabes, prostatic hypertrophy, malaria, leprosy, etc.—DOSE: 2–6 tabl. per day.

Novothyral

Prep'd fr. thyroid substce; 1 part = 10 pts fresh gland.—USES: Myxedema, cachexy, cretinism,

hyperplastic struma, thyreogenic obesity.—
DOSES: Adults, up to 8 tablets of 0.1 Gm. ea.
(as mkt'd); children 1–2 tabl. accord. to age.

NUCES (SEMEN) NUCISTÆ—see *Myristica*

NUCITE—see *Inosit*

Nuclein Merck—From Yeast

Nucleinic acid-albumin comp'd fr. yeast cell nuclei.—Wh. to sltly reddish, light powd.—
SOL.: NH_4OH & solut. NaOH ; scarcely in cold or boil. W.—ACTION: Antisep.; Germicide; possesses Antipyretic properties & causes hyperleucocytosis.—USES: *Intern.*, chron. varicose ulcers of leg, tonsil., diphth., pulmon. & masked tubercul., lupus, carcinoma, pern. anem., angina, marasmus, cachexy, typhoid, inflammatory infectious & asthenic processes, & pneum.—*Extern.*, on wounds as 2%–3% dust.-powd. or oint.—DOSE: 0.5 Gm. (8 grn.) 4–6 t.p.d.; doses of even 2–5 Gm. (30–75 grn.) have been advocated; *subcut.* in lupus, 0.5 cc. (8 M) grad. incr. to 12 cc. (3 fl. dr.) p. day of a solut. ea. cc. (15 M) of which cont's 0.005 Gm. ($\frac{1}{12}$ grn.) nuclein; in parenchymatous tuberc., 0.5–3.25 cc. (8–50 M) of a like solut.

do. Horbaczewski

Fr. fresh calf spleen by digest. w. pepsin-HCl & purif. the insol. res. which consists chiefly of cell nuclei; this res. cont. the nuclein compds. which on decomp. w. blood in sltly alkal. solut. yield uric acid.—Brownish-gray, alm. odorl. powd.—SOL.: Warm dil. alkali solut. w. dark-brown color.—ACTION & USES: As of nuclein fr. yeast; also in puerperal infection in large doses.—DOSE: *Subcut. or intraparenchymat.* in tubercul. lupus, & after laparotomy, 0.5 cc. (8 M) incr. up to 12 cc. (180 M) of a 0.5% aqu. solut. w. 0.5% solut. NaOH & 0.5% phenol.

Nucleohiston

Fr. thymus glands of calves.—Light-brownish, odorl., tastel. powd.—SOL.: Solut. NaOH ; v. sltly W.; insol. A., E.—USES: Believed to be the physiolog. active constit. of leucocytes, & as its decomp'n products (nuclein, nucleic acid, & histone) would point to the possession of bactericide & antitoxic properties, its therapeutic employment would appear to be indicated; no reports of its therap. use appear to be recorded, however.

NUMEAIT—see *Garnierite*

NUMOQUIN—see *Optochin Base*

NUMOQUIN HYDROCHLORIDE—see *Optochin Hydrochloride*

Nutgall—U.S.P. X; B.P.

Galla; Galls; Aleppo-, Turkey-, or Mecca-, Galls.—Gall fr. young twigs of *Quercus infec-*

toria, Oliv., & o. allied spec. of Q., Fagaceæ; (caused by the deposited ova of *Cynips gallæ tinctoriæ*, Oliv., B.P.).—HABIT.: Levant (Syria; Turkey).—CONSTIT.: Gallic (2%–4%) tannic (50%–60%), & ellagic acids; mucilage; sugar; resin.—ACTION: Astring.—USES: *Intern.* (rarely) in chron. dysentery, diarrh., passive hemorrhages, poisoning by strychnine & o. alkaloids; *extern.*, gleet, leucorrhea, prolapsus ani, hemorrhoids, & as gargle in ulcerated fauces & relaxed uvula.—*Techn.*, manuf. tannin & ink; dyeing & tanning.—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver., 0.5 Gm. (8 grn.).—Tr. (1:8), 2–8 cc. (30–120 M); also applied to frostbites, & in 2–5:100 solut. as inject. in atonic ulcers; also as 1:5 oint.—INCOMPAT.: Alkalies, alkaloids; salts of Fe, Pb, & Zn; opium in solut.; AgNO_3 ; CuSO_4 .

do. Chinese

Excrescence on the leaf or leaf-stalk of *Rhus semialata*, Murray (Anacardiaceæ) caused by the punctures of *Aphis chinensis*, Bell (Hemiptera).—HABIT.: China.—CONSTIT.: Tannin.—USES: Manuf. tannin, ink, &c.

NUTMEG—see *Myristica*

NUTMEG BUTTER—see *Oil Myristica*, Expressed

NUTROSE—see *Casein-Sodium*

NUX MOSCHATA—see *Myristica*

Nux Vomica—U.S.P. X; B.P.

Quaker, or Bachelor's, Buttons; Poison Nut; Dog Buttons; Vomit Nut.—Dried, ripe seed of *Strychnos Nux-Vomica*, L. Loganiaceæ (yielding not less than 2.5% nux vomica alkaloids, U.S.P.).—HABIT.: Southern Asia; northern Australia.—CONSTIT.: Strychnine (1%–1.5%); brucine; strychnicine; loganin; caffeotannic (igasuric) acid; proteids.—ACTION: Tonic; Motor Excitant; Spinant; Stomachic; Cardiac, Respiratory, Muscular, & Nervous Stim.—USES: Atonic dyspep., neurasthenia, chron. constip., neuralg., paralysis, &c.—Antidote to poison by opium, chloral hydrate, & o. narcotics.—DOSE: 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.), aver., 0.1 Gm. ($1\frac{1}{2}$ grn.).—Extr., 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.), aver., 0.015 Gm. ($\frac{1}{4}$ grn.); *Max. D.*, 0.06 Gm. (1 grn.) single, 0.2 Gm. (3 grn.) daily.—Fl'dextr., 0.06–0.3 cc. (1–5 M), aver., 0.06 cc. (1 M); *Max. D.*, 0.36 cc. (6 M) single, 0.75 cc. (12 M) daily.—Aqu. extr., 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.).—Tr., 0.3–1.3 cc. (5–20 M), aver. 0.5 cc. (8 M).—ANTID.: As of strychnine.

Nylander's Solution—Test for Glucose (Dextrose)

4 Gm. Rochelle salt, 10 Gm. NaOH , 2 Gm. bism. subnitrate, & W. to make 100 cc. (U.S.P. IX).—Colorl. liq.—USES: Test f. glucose (dextrose) in urine.

Obermayer's Solution—Test for Indican

(1) (a), 20% solut. lead acetate; (b), solut. 1 to 2 FeCl₃ in 500 fuming HCl.—Shake chloroformic extract of the suspected urine w. the soluts in succession; if indican present, a blue ppt. of indigo-blue forms.—(2) (a) 0.4 Gm. FeCl₃, & HCl to make 100 cc.; (b) 25 Gm. lead acetate & W. to make 100 cc. (U.S.P.).

OCTANDIACID—see Acid Suberic

OCTANOL—see Alcohol Caprylic

OCTENE—see Caprylene

OCTYL ACETATE—see Capryl Acetate

Octyl Iodide—Secondary

CH₃.CHI.C₆H₁₃ = 240.10.—Fr. methylhexylcarbinol by P & I.—Oily liq.—SOL.: A., E.—SP. GR.: 1.310 at 16° C.—BOIL.: Abt 10° C., w. decomp.—USES:—Manuf. caprylene (used in making artif. perfumes).—CAUT.: Keep in amber bot.

OCTYLENE—see Caprylene

OCULI (CALCULI) CANCORUM—see Crabs' Eyes

OENANTHALDEHYDE }
OENANTHOL } see Aldehyde Oenanthic

OESIPOS—see Lanum, Anhydrous

OIL ADEPSINE—see Petrolatum, Liquid

Oil Ajowan—B.P.

Ptychotis Oil.—By dist. fr. fruits of *Carum copticum*, B. & H.—Colorl. liq.; thyme-like odor & taste.—SP. GR.: 0.917–0.930, B.P.C.—OPT. ROT.: +1° to +2°.—CONSTIT.: Thymol (not less than 40%, B.P.), cymene, "thymene."—ACTION: Antispas.; Carmin.—USES: As of thymol.—DOSE: 0.03–0.2 cc. (½–3 M).

OIL AMERICAN PENNYROYAL—see Oil Hedeoma

Oil Almond, Bitter, Merck—U.S.P. X—Fr. Bitter Almonds

Volatile oil fr. dried ripe kernels of *Amygdalus communis* L., (bitter almonds), or fr. o. kernels cont'g amygdalin.—Colorl. or yellow, v. refract. liq.; charact. odor & taste of benzaldehyde.—SOL.: All prop., A., E.; 2 vol. 70% A.; sltly W.—SP. GR.: 1.038–1.060 at 25° C.; (1.045–1.070 at 15.5°, B.P.C.).—OPT. ROT.: Inactive or sltly dextrorotatory.—CONSTIT.: Not less than 2% or more than 4% HCN, & not less than 85% benzaldehyde, U.S.P.; phenyl-oxyacetone nitrile.—ACTION: Nerve Sedative.—USES: *Intern.*, coughs;—*Extern.*, as appl. in torpid corneal ulcers; in neuralgia, to allay severe itch.—*Techn.*, as flavor f. cosmetics; only the oil *free fr. HCN* should be used f. liqueurs & f. flavor'g foods.—DOSE: 0.01–0.06 cc. (½–1 M); aver., 0.03 cc. (½ M).—MAX. D.: 0.06 cc. (1 M) single; 0.15 cc. (2½ M) p.d.—ANTID.:

Emetics; stomach siphon, NH₄OH, brandy, iron persulphate.—CAUT.: Poison!

do. Merck—U.S.P. X—Fr. Apricot Kernels

do. —True, Free fr. HCN

Less poison. substit. f. the U.S.P. prep.—USES: Flavor f. beverages & foods.—DOSE: 0.03–0.12 cc. (½–2 M).—CAUT.: Does not keep well.

OIL ALMOND, ESSENTIAL, ARTIFICIAL—see Benzaldehyde

Oil Almond, Expressed—U.S.P. X; B.P

Sweet Oil Almonds.—Fixed oil fr. kernels of varieties of *Amygdalus communis*, L.—Liq. & clear still at –10° C., & congeals near –20°.—MISC.: B., C., E., petrol. E.; sltly sol. A.—SP. GR.: 0.910–0.915 at 25° C., U.S.P.; 0.915–0.920 at 15.5° C., B.P.—ACTION: Demulc.; Lax.; Nutrient.—USES: *Intern.*, bronch. in mucilage or egg-yolk emulsion; as lax. f. childr. —*Extern.*, slight burns, blisters or injuries.—*Techn.*, in perfumery, manuf. fine soaps, & as lubricant f. delicate mechanisms (watches, fire-arms, &c.).—DOSE: 4–30 cc. (1–8 fl. dr.).

OIL ALMOND, SWEET—see Oil Almond, Expressed

OIL ALLSPICE—see Oil Pimenta

Oil Amber—Rectified—B.P.C.

Fr. the crude oil by redistill'n.—Pale yellow to yellowish-brown, mobile, volat. oil; penetrating odor; burn'g, acrid taste.—SOL.: Abt 12 A.; 4–5 A. (90%); C., E., CS₂, oils, B.P.C.—SP. GR.: 0.920 at 15° C.; 0.915–0.950 at 15.5° C., B.P.C.—OPT. ROT.: +22°30' to +26°.—ACTION: Antispas.; Stim.; Diur.; Rubefacient.—USES: *Intern.*, hyst., intest. irritat., infantile convuls., amenor., whoop-cough, &c.—*Extern.*, linim.; rheum.; also f. toothache & earache.—DOSE: 0.06–0.2 cc. (1–3 M), B.P.C.

do. —Crude

Tar-like product fr. amber by destruct. distil. Mixt. of terpenes w. resinous oxygen-cont'g substes & slt quant. volat. fatty acids.—Dark-brown, viscid oil; very disagr. odor.—SOL.: A., E.—ACTION: Rubef.—USES: *Extern.*, rheum., neural., toothache (on cotton in cavity); also as source of rectified oil.

Oil Angelica

Terpene-free oil fr. root of *Angelica officinalis* Hoffm.—Yellow liq.—SP. GR.: 0.85–0.90 at 15° C.—OPT. ROT.: +11° to +12°.—CONSTIT.: Phellandrene; valeric acid.—USES: Stim.—DOSE: 0.06–0.2 cc. (1–3 M).

OIL ANILINE—see Aniline

Oil Animal—Rectified

Dippel's Oil.—Obt'd by destruct. distil. of bones, horn, gristle, &c.—Brown liq.; repulsive odor.—SOL.: 80 W.; v. eas. A., E., fixed oils.—CONSTIT.: Hydrocarbons, pyridine bases, & amines.—USES: *Extern.*, parasitic skin dis.—*Intern.*, formerly (now rarely) as vermifuge,

antispasmodic & diaphor., & in hysteria.—DOSE: 0.3–1.3 cc. (5–20 M) in gelat. caps. or gelat.-coated pills.—Formerly employed in veterinary medicine as an antisept., stim., antheimint. & carminative.—Chiefly used f. keeping flies fr. food of cattle.

Oil Anise—U.S.P. X; B.P.

Volat. oil fr. dried ripe fruit *Pimpinella Anisum*, L. (Anise), or fr. dried ripe fruit of *Illicium verum*, Hook. fil. (Chinese Star Anise).—Colorl. or pale-yellow, refractive liq.—SOL.: 3 A. (90%); C., E.—SP. GR.: 0.978–0.988 at 25° C., U.S.P.; 0.975–0.990 at 20° C., B.P.—SOLIDIF.: Not below +15° C., U.S.P.—OPT. ROT.: +1° to –2°.—CONSTIT.: Anethol (80%–90%, B.P.C.); methyl chavicol.—ACTION: Carmin.; Stim.; Antispasm.; Antisept.—USES: *Intern.*, Incr. flow of milk, & relieve flatulent colic; correcting unpleasant taste & odor of medicines.—*Extern.*, as liniment & oint. in colics, lice, etc.—*Techn.*, manuf. liqueurs.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

Oil Anise, Star, Japanese

Volat. oil fr. fruit of *Illicium anisatum*, L. (Japanese Star Anise).—Colorl. to sltly yellowish liq.—SOL.: 3 A., E.—SP. GR.: 0.980–0.990 at 15° C.—SOLIDIF.: 10°–15° C.—OPT. ROT.: –8.1°.—CONSTIT.: Anethol (chiefly).—USES & DOSES: As of Oil Anise.

OIL AMERICAN PENNYROYAL—see Oil Hedeoma

OIL AMERICAN WORMSEED—see Oil Chenopodium

OIL ANTS, ARTIFICIAL—see Furfural

OIL, APPLE—see *iso*-Amyl *iso*-Valerate

Oil Arachis—B.P.

Earthnut, Groundnut, or Peanut, Oil.—Expressed fr. seeds of *Arachis hypogaea*, L.—Bland, straw-yellow to greenish-yellow, or alm. colorl. oil; nutty odor & taste.—SOL.: B., C., E., CS₂, CCl₄, petrol. E., oils; v. sltly A.—SP. GR.: 0.916–0.921 at 15° C.—SOLIDIF.: –5° C.—I-No.: 83–101.—SAPON. No.: 190–196.—ACID No.: Not over 6.—CONSTIT.: Olein (chiefly); glycerides of arachidic, hypogaeic, lignoceric & linolic acids & stearin, B.P.C.—USES: *Pharm.*, as of olive oil, & *techn.* in oint., plasters, & liniments; illuminant f. night-lights.

OIL ARBOR VITÆ—see Oil Thuja

Oil Arnica Flowers

Volat. oil fr. fl's of *A. montana*, L.—Yellowish-red liq.—SOL.: A., E.—SP. GR.: 0.90 at 15° C.—SOLIDIF. in the cold.—CONSTIT.: Chiefly laurinic & palmitic acids & hydrocarbons.—ACID No.: 75.1.—SAPON. No.: 29.9.—USES: *Extern.*, rheum., gout, burns, injuries, &c.—*Intern.*, in sequelae of apoplexy.—DOSE: ½–2 drops, sev'l t.p.d.—APPL.: w. lime-W. & egg-yolk in burns.

Oil Asarum

Oil Canada Snakeroot.—Volat. oil fr. rhizome of *Asarum canadense*, L.—Yellowish-brown liq.; arom. odor & taste.—SOL.: 2 A. (70%).—SP. GR.: 0.93–0.96 at 15° C.—OPT. ROT.: –3.5°.—CONSTIT.: Terpene (pinene?); asarol

alcohol; methyl eugenol.—ACTION: Antisept.; Stim.—USES: Flavor. f. o. remed.; *techn.*, in perfumery.—DOSE: 0.06–0.12 cc. (1–2 M).

Oil Balm

Oil of Melissa; Oil of Lemon Balm.—Volat. oil fr. lvs & tops *Melissa officinalis*, L.—Yellow to yellowish-green liq.—SOL.: A.—SP. GR.: 0.89–0.925 at 15° C.—CONSTIT.: Citral (chiefly).—ACTION: Diaph.; Antispasm.—USES: Agre. flavor. f. antispasm. & diaph. medic.—*Extern.*, as liniment.—DOSE: 0.06–0.2 cc. (1–3 M).

OIL BANANA—see *iso*-Amyl Acetate

Oil Basil

Volat. oil fr. lvs *Ocimum Basilicum*, L. (Sweet Basil).—Yellowish liq.; arom. odor.—SOL.: 2 A. (80%).—SP. GR.: 0.905–0.930 at 15° C.—OPT. ROT.: –6° to –22°.—CONSTIT.: "Basilicum camphor."—ACTION: Antisept.; Stim.—USES: Flavoring; perfumery.—DOSE: 0.06–0.12 cc. (1–2 M).

OIL BAY—see Oil Myrcia

OIL BENNE—see Oil Sesame

Oil Bergamot—N.F. V; B.P.C.

Volat. oil expressed fr. rind of fresh fruit of *Citrus Aurantium*, L. var. *Bergamia*, Wight et Arnott.—Yellowish-green liq.; v. agre. odor.—SOL.: 0.5 A. (95%) & 2 A. (80%), N.F.—SP. GR.: 0.875–0.880 at 25° C., N.F.; 0.882–0.886 at 15.5° C., B.P.C.—OPT. ROT.: +8° to +24°, N.F.—ACID No.: 1–4, B.P.C.—CONSTIT.: *d*-limonene, dipentene, *l*-linalool (abt 6%, B.P.C.), bergaptene, & *l*-linalyl acetate (not less than 36%, N.F.; 35%–45%, B.P.C.).—USES: *Extern.*, as liniment f. killing head & body lice.—*Techn.*, in perfumery, hair oils, pomades; & for masking many disagreeable odors (*e.g.*, of iodoform, naphthalene, etc.).—DOSE: 0.05–0.2 cc. (¼–3 M). CAUT.: Keep well stoppered, cool, & dark.

Oil Betula Merck—U.S.P. X

Oil Sweet Birch; "Oil Wintergreen" (commercial designation); Methyl Salicylate.—Volat. oil dist. fr. *Betula lenta*, L.—DESCRIPT., SOL., USES, & DOSES: As of Methyl Salicylate.

OIL BIRCH, EMPYREUMATIC—see Oil Birch Tar, Empyreumatic

Oil Birch Tar—Empyreumatic—B.P.C.

Empyreumatic Birch Oil; Oil White Birch; Oleum Rusci (B.P.C.).—Fr. bk & wood of *Betula alba*, L. (Wh. Birch), by destruct. distil.—Black, viscid liq.; odor of Russian leather.—SOL.: C., fats, oils; part. in A.—SP. GR.: 0.926–0.955 at 20° C.—CONSTIT.: Oil turpentine, o. isomeric hydrocarbons, various empyreumatic resins, guaiacol, cresol, pyrocatechol, & betulin.—ACTION: Antisept.—USES: Inst. of tar or oil of cade in skin dis.—*Techn.*, preserv. wood & leather.

do. Merck—Rectified—N.F. V

"Oil Birch Wood Essential."—Fr. empyreum. oil white birch by steam distil.—Dark-brown liq.; odor of Russian leather.—SOL.: 3 absol. A., B.,

C., E., amyl A., glac. acet. acid, CS₂, & oil turp. —SP. GR.: 0.886–0.950 at 25° C. —ACTION: Antisep. —USES: *Intern.*, intermittent fever, dropsy, menstrual disturbances, gonorrh., worms. —*Extern.*, As 5%–10% oint., or as zinc paste in rheumat., gout, syphil. ulcers, pityriasis, lichen ruber, etc. —DOSE: 0.2–0.5 cc. (3–8 M) 3 t.p.d. —VETER. MED., in dis. of the hoofs; ecz., herpes, & mange.

OIL BLACK PEPPER—see Oil Pepper

Oil Cade Merck—U.S.P. X

Empyreumatic Oil Juniper; Oil Juniper Tar. —Empyreumatic vol. oil fr. wood of *Juniperus Oxycedrus*, L.—Dark-brown, more or less viscid, liq.; smoky odor; acrid, sltly arom. taste. —SOL.: C., 3 E., amyl A., glac. acet. acid, oil turp., & partly in A. & petrol. E.; v. sltly W. U.S.P.; (alm. wholly in hot 90% A., B.P.). —SP. GR.: 0.980–1.055 at 25° C., U.S.P.; abt 0.990, B.P. —CONSTIT.: Cadinene. —ACTION: Antisep. —USES: *Extern.*, in ecz. acne, psoria., pityriasis, scabies, gout, rheum., favus, chronic skin eruptions, &c. —*Intern.*, v. rarely as anthelmintic & in chronic skin dis. —DOSE: 0.06–0.2 cc. (1–3 M) —VETER. MED., as oint. & in soap f. parasitic skin dis. of sheep, horses, dogs, &c. —DOSE: 2–5 drops 3–4 t.p.d.

Oil Cajuput—U.S.P. X; B.P.

Volat. oil fr. fresh lvs & twigs of sev'l varieties of *Melaleuca Leucadendron*, L., espec. *Cajeputi* (Roxb.) *Niedenzu*, & *C. minor* (Smith) *Duthie*. —Colorl. or yellowish liq., U.S.P. (green or bluish-green liq., B.P.). —SOL.: 1 A. (80%); clearly misc. w. A., C., E., CS₂. —SP. GR.: 0.912–0.925 at 25° C., U.S.P.; 0.919–0.930 at 15° C., B.P. —OPT. ROT.: Not over –4°. —CONSTIT.: Cineol (cajeputol, eucalyptol; not less than 45%, B.P.; 45%–55%, B.P.C.) terpineol; *l*-pinene; sev'l aldehydes. —ACTION: Stim.; Diaph. —USES: *Intern.*, dyspep., cardialgia, colic, flatulence, asthma, tapeworm, low fevers, cholera, rheum., gout, bronch., catarrh., rheumat. earache, &c.; also as vermicide. —*Extern.*, in pityriasis, psoria., acne, chron. rheum. & neural., &c., in 1–5:10 oint. or linim.; in toothache on cotton in cavity; in earache on cotton in external auditory canal. —DOSE: 0.3–1.3 cc. (5–20 M), aver. dose, 0.5 cc. (8 M); 0.03–0.2 cc. (½–3 M), B.P.

Oil Calamus

Oil Sweet Flag. —Volat. oil fr. rhiz. of *Acorus Calamus*, L.—Yellow to yellowish-brown viscid liq.; arom. odor; bitter taste. —SOL.: Eas. A.—SP. GR.: 0.960–0.970 at 15° C.—OPT. ROT.: +9° to +31°. —SAPON. NO.: 16–20. —ACTION: Stoma.; Carmin. —USES: *Intern.*, dyspep. —*Extern.*, as mild rubefacient in 1%–5% alcoh. solut. in gout & rheumat. —DOSE: 0.03–0.2 cc. (½–3 M).

Oil Camphor—B.P.C.

Formosa, or Japanese, Oil of Camphor. —Volat. oil fr. *Cinnamomum Camphora*, Nees & Eberm. —Colorl. or yellowish liq.; camph. odor. —SOL.: Oils, E., C.—SP. GR.: Abt 0.960 at

15.5° C. (after remov'g safrol). —CONSTIT.: Safrol; acetaldehyde; camphor; terpineol; eugenol; cineol; *d*-pinene; phellandrene; dipentene; cadinene. —ACTION: Stim.; Antisep.; Rubefacient; Parasiticide. —USES: *Extern.*, spasmodic cholera, & w. olive oil as linim. in rheum., neural., bruises, & sprains. —DOSE: 0.12–0.2 cc. (2–3 M).

Oil Camphorated—U.S.P. X; B.P.

Camphor Liniment. —1 camphor + 4 cottonseed oil, U.S.P.; 1 + 4 olive oil, B.P. —ACTION: Rubefacient; Stim. —USES: *Extern.*, rheum., neural., &c. —CAUT.: The prep'n is not intended f. hypodermic use.

OIL CANADA FLEABANE—see Oil Erigeron

OIL CANADA SNAKEROOT—see Oil Asarum

OIL CANANGA—see Oil Ylang Ylang

Oil Caraway—U.S.P. X; B.P.

Volat. oil fr. dried ripe fruit *Carum Carvi*, L.—Colorl., or pale yellow liq.; darkens & thickens w. age. —SOL.: 8 vol. 80% A., U.S.P.: 1 A. (90%), B.P.; C., E.—SP. GR.: 0.900–0.910 at 25° C., U.S.P.; 0.910–0.920 at 15.5° C., B.P. —OPT. ROT.: +70° to +80°, U.S.P.; 75°–82°, B.P. —CONSTIT.: Carvone (carvol; not less than 50% by vol., U.S.P.; 45%–60% B.P.C.); *d*-limonene (carvene). —ACTION: Stim.; Carmin. —USES: *Intern.*, in colic, cardialgia, anorexia, digestive disturb., to improve taste of bitter remed. & to correct griping cathartics. —*Extern.*, in toothache, & to destroy acarus (a solut. of 5 oil, 5 alcoh., & 75 castor oil, is used). —*Techn.*, Manuf. liqueurs, & perfum'g soap. —DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

Oil Cardamom—N.F. V

Volat. oil fr. fruit *Elettaria cardamomum*, Maton. —Colorl. or pale-yellow liq. —SOL.: Eas. in A., & in 4 vol. 70% A.—SP. GR.: 0.924–0.927 at 25° C.—OPT. ROT.: +22° to +44°. —CONSTIT.: Terpinene; terpineol. —ACTION: Arom.; Carmin.; Stim. —USES: Flavor. —DOSE: 0.06–0.12 cc. (1–2 M).

Oil Cascarilla

Volat. oil fr. bark *Croton Eluteria*, Bennet. —Yellow to greenish liq. —SOL.: Eas. A.—SP. GR.: 0.890–0.925 at 15° C.—OPT. ROT.: +2° to +5°. —CONSTIT.: Dipentene & a sesquiterpene. —ACTION: Stim.; Tonic. —USES: Adjuvant in bitter tonics. —DOSE: 0.06–0.12 cc. (1–2 M).

OIL CASSIA—see Oil Cinnamon

Oil Castor—U.S.P. X; B.P.

Oleum Ricini. —Fixed oil fr. seeds *Ricinus communis*, L.—Yellow, oleaginous liq. —SOL.: 1 A., all proport. absol. A. or glacial acetic acid, U.S.P.; (3.5 A. [90%], B.P.). —SP. GR.: 0.945–0.965 at 25° C., U.S.P.; 0.958–0.970 at 15.5° C., B.P.—SAPON. NO.: 179–185.—I-No.: 83–88.—ACID NO.: Abt 4.—CONSTIT.: Chiefly ricinolic acid glyceride & its isomers. —ACTION: Cathartic. —USES: *Intern.*, constip., colic, diar., & dysent. —*Extern.*, as galactagogue, in skin dis. & in hair restorers. —*Techn.*, in manuf.

Turkey-red oil, soap, regenerating caoutchouc, as lubricant, &c.—DOSE: As mild laxat., 15–30 cc. (4–8 fl. dr.); aver. dose 15 cc. (4 fl. dr.); f. childr., 4–12 cc. (1–3 fl. dr.).—VETER. MED., as lax., *cattle*, 500–1000 cc. (abt 1–2 pints); *horses*, 250–750 cc. ($\frac{1}{2}$ –1 $\frac{1}{2}$ pints); *foals, calves, sheep & goats*, 50–250 cc. (1 $\frac{1}{2}$ –8 fl. oz.); *pigs*, 50–100 cc. (1 $\frac{1}{2}$ –3 fl. oz.); *dogs* 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.); *cats*, 10–20 cc. (2 $\frac{1}{2}$ –5 fl. dr.); *fowl*, 15–30 cc. ($\frac{1}{2}$ –1 fl. oz.).

OIL CEDAR, WHITE—see Oil Thuja

Oil Cedar Wood—B.P.C.

Volat. oil fr. wood *Juniperus virginiana*, L., (Red Cedar), & o. spec. of cedar.—Colorl. or sltly yellow, somewhat viscid liq.—SOL.: 10–20 A. (90%).—SP. GR.: 0.940–0.960 at 15.5° C.—OPT. ROT.: –30° to –45°.—CONSTIT.: Cedrene (chiefly); cedar camphor (cedrol).—ACTION: Stim., Emmenag.—USES: *Intern.*, rarely, in gonorr. like santalwood oil.—*Techn.*, perfumery; insect destroyers; the thickened oil is employed in microscopy as clearing agent & f. use w. immersion lens.—DOSE: 2–10 drops.

OIL CEDRAT—see Oil Cedro

Oil Cedro

Oil of Citron, or Cedrat.—Volat. oil fr. rind of fruit *Citrus medica*, Risso.—Yellow liq.; lemon odor.—SOL.: A.—SP. GR.: 0.871 at 15° C.—OPT. ROT.: + 67° 8'.—CONSTIT.: Citral.—ACTION: Stim.; Antisep.—USES: Perfume & flavor.—DOSE: 0.06–0.12 cc. (1–2 M).

Oil Celery

Volat. oil fr. seed *Apium graveolens*, L.—Colorl. liq.; celery odor.—SP. GR.: 0.870–0.895 at 15° C.—OPT. ROT.: + 67° to + 79°.—CONSTIT.: *d*-limonene; phenols; sedanoline; & sedanonic acid.—ACTION: Stim.; Carmin.; Antispasm.—USES: Headache, hyst., nerv. affec., & f. flavor. unpleas. remed.—DOSE: 0.06–0.12 cc. (1–2 M).

Oil Chamomile—German

Volat. oil fr. fr. *Matricaria Chamomilla*, L.—Bluish, viscid oil; butter-like when cooled, & solid at 0° C.; agre. odor of chamomile.—SOL.: 6 A. (70%).—SP. GR.: 0.930–0.945 at 15° C.—OPT. ROT.: + 1° to + 3°.—SAPON. NO.: Abt 45.—CONSTIT.: Coeruleine; an odorl. paraffin.—ACTION: Antispasm.; Carmin.; Stim.—USES: Cramps, colic, asthma, dyspep., &c.—DOSE: 0.03–0.12 cc. ($\frac{1}{2}$ –2 M).

do. —Roman—B.P.

Volat. oil fr. fr. *Anthemis nobilis*, L.—Blue liq. when freshly dist. & becom'g brownish yellow by act. of air & light.—SOL.: Less than 1 A. (90%), B.P.; 0.3 A. (90%), & 6 A. (70%), B.P.C.—SP. GR.: 0.905–0.915 at 15° C.—OPT. ROT.: –1° to + 3°.—SAPON. NO.: 250–300.—CONSTIT.: Angelic-, tiglic-, & isobutyric acid esters of isobutyl, amyl, & hexyl, alcohols; anthemol.—ACTION: Tonic; Antispasm.; Stomachic.—USES: Enfeebled digest. & f. flatulent colic, dysmenorrh., whoop-cough, etc.—DOSE: 0.03–0.2 cc. ($\frac{1}{2}$ –3 M).

Oil Champaca

Volat. oil fr. frs *Michelia Champaca*, L.—Light-yellow to reddish-yellow to brownish liq.—SOL.: Diffic. in A.—SP. GR.: 0.907–0.935 at 15° C.—OPT. ROT.: –12° 18' to –52°.—SAPON. NO.: 77.—USES: Perfume.

Oil Chaulmoogra—U.S.P. X; B.P.

Gynocardia Oil.—Fixed oil express. fr. seeds of *Taraktogenos Kurzii*, King.—Yellow or brownish-yellow oil; below 25° C. a soft solid; charact. odor.—SOL.: B., C., E., petrol. E.; spar. A., U.S.P.; alm. entirely in hot A. (90%), CS₂, B.P.—SP. GR.: Abt 0.950 at 25° C., or 0.940 at 45° C.—OPT. ROT.: +48° to +60°, U.S.P.—SAPON. NO.: 196–213.—I-NO.: 98–104.—ACID NO.: 10–28, U.S.P.; 21–27, B.P.—CONSTIT.: Chaulmoogric, hydrocarpic, & palmitic acids.—USES: *Intern.*, claimed to be a specific in elephantiasis or Eastern leprosy; also in syph., scabies, scrofula, skin dis., & rheumat.—*Extern.*, in 1:3 oint. f. bruises, sores, & injuries.—DOSE: 0.25 cc. (4 M) grad. incr. to 1.3 cc. (20 M); aver. dose 1 cc. (15 M).—*Hypoderm.*, 1–5 cc. (5–75 M) of sterilized oil.

Oil Chenopodium—U.S.P. X; B.P.C.

Oil American Wormseed.—Volat. oil fr. fresh over-ground parts of flowering & fruiting plant of *Chenopodium ambrosioides*, var. *anthelminticum* (L.) Asa Gray.—Colorl., or pale-yellow liq.; charact. disagr. odor & taste.—SOL.: In not over 8 (10, B.P.C.) vol. 70% A.—SP. GR.: 0.955–0.980 at 25° C., U.S.P.; 0.950–0.990 at 15.5° C., B.P.C.—OPT. ROT.: –4° to –10°.—CONSTIT.: Ascaridol (not less than 65% U.S.P.; 60%–65%, B.P.C.), *p*-cymene; *a*-terpinene; sylvestrene (?).—ACTION: Anthelm.—USES: Ascariades, tenia, & hookworm; amebic dysent.; also in intermittent fever, hysteria, chorea, dyspep., etc.—DOSE: 0.2–1 cc. (3–15 M); aver. dose, 1 cc. (15 M).—In ascariades in childr., 0.25–0.5 cc. (4–8 M) ev. hr f. 3 doses, then 2 hrs later a dose of castor oil. In hookworm, 1 cc. (15 M) ev. 2 hrs f. 3 doses, then 2 hrs later a dose of castor oil.—In amebic dysent., 1 cc. (15 M) followed in 1 hr by a similar dose, followed by castor oil; in severe cases 2 cc. (30 M) w. castor oil at one dose; may also be given by rectum.—Accord. to Gockel (Bull. No. 224, U.S. Publ. Health Service) 8–16 drops accord. to age (8 drops 6–8 yrs; 10 drops 9–10 yrs; 12 drops 11–16 yrs; & 12–16 drops over 16 yrs).

Oil Cherry-Laurel

Volat. oil fr. lvs *Prunus Laurocerasus*, L.—Pale-yellow oil; odor & physical properties of volat. (bitter) oil almond.—SOL.: 2 A. (70%), B., C., E.—SP. GR.: 1.054–1.066 at 15° C.—CONSTIT.: Hydrocyanic acid; benzaldehyde; benzaldehydcyanhydrin (phenylxyacetone-trile); benzyl A.—ACTION: Sedat.—USES: Cough remed., pulmon. affect.—DOSE: 0.01–0.03 cc. ($\frac{1}{6}$ – $\frac{1}{2}$ M).—ANTID.: Emetics, stomach siphon, ammonia, brandy, & iron persulphate.—CAUT.: Poison!

OIL, CHINA—see Balsam Peru

OIL CHINESE BEAN—see Oil Soya Bean

OIL CHINESE CINNAMON—see Oil Cinnamon

Oil Cinnamon—U.S.P. X

Oil of Cassia, or Chinese Cinnamon.—Volat. oil fr. lvs & twigs of *Cinnamomum Cassia* (Chinese Cinnamon).—Yellowish or brownish liq.; darkens & thickens on expos. to air.—SOL.: 1 vol. A., 2 vol. 70% A., 1 vol. glac. acetic acid, U.S.P.—SP. GR.: 1.045–1.063 at 25° C.—OPT. ROT.: +1° to –1°, U.S.P.—CONSTIT.: Cinnamic aldehyde (not less than 80% by vol., U.S.P.); also cinnamyl acetate & eugenol.—ACTION: Stim.; Carmin.; Arom.—USES: *Intern.*, frequently employed inst. of oil of Ceylon cinnamon in colic, gastrodynia & gastric debil.—*Techn.*, as flavor. & perfume, & in chocolate manuf.—DOSE: 0.06–0.2 cc. (1–3 M) sev'l t.p.d.; aver. dose 0.1 cc. (1½ M); in influenza 6–10 drops in W.

do. Ceylon—B.P.

Volat. oil fr. bark *Cinnamomum zeylanicum*, Breyne.—Light-yellow liq., grad. bec. reddish; charact. odor.—SOL.: 3–4 vol. 70% A.; 0.3 A. (90%), 2–4 A. (70%), B.P.C.—SP. GR.: 1.000–1.030 at 15.5° C., B.P.—OPT. ROT.: –0.5° to –1°.—CONSTIT.: Chiefly cinnamic aldehyde (55%–65%, B.P.); 55%–75% (B.P.C.); eugenol (4%–8%, B.P.C.); phellandrene.—ACTION: Stim.—USES: *Intern.*, influenza, & cholera.—*Extern.*, by inhal. in phth. & catarrhs.—*Techn.*, as flavor (finer than that of oil of Chinese cinnamon).—DOSE: 0.03–0.2 cc. (½–3 M).

OIL CITRON—see Oil Cedro

Oil Citronella—B.P.C.

Volat. oil fr. fresh grass, *Cymbopogon* (*Andropogon*) *nardus*.—Alm. colorl. or pale yellow liq.; grad. bec. reddish; pleas. odor.—SOL.: 3–10 vol. 80% A., B.P.C.—SP. GR.: 0.900–0.920 at 15.5° C., B.P.C.—OPT. ROT.: 0° to –15°.—CONSTIT.: Camphene; citronellal; borneol; geraniol; & dipentene.—USES: *Extern.*, as liniment in rheumat.—*Techn.*, as perfume; also in veter. medicine as liniment; as insectifuge.

Oil Cloves—U.S.P. X; B.P.

Volat. oil fr. dried flower buds of *Caryophyllus aromaticus*, L. (*Eugenia caryophyllata*, Thunb., B.P.).—Colorl. to pale-yellow liq., becom. darker & thicker w. age.—SOL.: v. eas. A.; 2 vol. 70% A.; (also sol. E.; strong acet. acid).—SP. GR.: 1.038–1.060 at 25° C., U.S.P.; (1.047–1.065, at 15° C., B.P.).—BOIL.: Abt 250° C.—OPT. ROT.: Not over –1°10', U.S.P.; 0° to –1°, B.P.—CONSTIT.: Eugenol (chiefly; not less than 82% by vol., U.S.P.; 85%, B.P.); caryophyllene; vanillin; fural; acetyleugenol (abt 2%); methylamylketone.—ACTION: Carmin.; Antispasm.; Antisept.; Anod.—USES: *Intern.*, colic, gastric fermentative processes, tuberc., diarrh.—*Extern.*, as rubefacient; also in toothache, perfumery, toothpowders & mouthwashes.—*Techn.*, in chocolate manuf.—DOSE: 0.03–0.2 cc. (½–3 M); aver. dose, 0.1 cc. (1½ M).—*Subcut.*, in tuberc., 0.3 cc. (5 M) in 2 cc. (30 M) sterilized olive oil p. day.

OIL, COAL—see Petroleum, Crude

Oil Coconut—B.P.C.

Copra Oil.—Expressed fat fr. nut *Cocos nucifera*, L.—Wh., semi-solid lard-like fat; readily bec. rancid on expos. to air.—SOL.: 2 A. at 60° C., & v. sol. C., E., CS₂.—MELT.: 21°–25° C.—SOLIDIF.: 23°–16° C.—SP. GR.: 0.903 at 100° C.—SAPON. No.: 258.—I-No.: 8–9.5.—CONSTIT.: Trimyristin; trilaurin; tripalmitin; tristearin; triolein; var. glycerides.—ACTION: Alter.; Nutrient.—USES: *Intern.*, substit. f. cod-liver oil in phth.—*Extern.*, as oint. base, as hair dressing, & in massage.—*Techn.*, manuf. soap; dyeing cotton; edible fats, chocolate & candies; in baking inst. of lard; candles & night lights.—DOSE: 8–15 Gm. (2–4 dr.).

Oil Cod-Liver Merck—U.S.P. X

Fixed oil fr. fresh livers of *Gadus morrhua*, L. & o. spec. of G.—Pale-yellow liq.—SOL.: C., E., CS₂, ethyl acetate; sltly in A.—SP. GR.: 0.918–0.927 at 25° C., U.S.P.; (0.920–0.930 at 15.5° C., B.P.).—SAPON. No.: 180–190.—I-No.: 140–180, U.S.P.; 155–175, B.P.—ACID No.: Abt 3.—CONSTIT.: Jecolein; therapin; jecoleic acid glycerides; therapic acid; palmitin; alkaloidal bodies; bile acids; cholesterin; iodine.—ACTION: Alter.; Tonic; Nutrient.—Action believed to depend largely upon its content of fat-soluble vitamine A.—USES: *Intern.*, deficiency diseases, tuberc., scrof., rheum., carious ulc., cutan. erup., &c.—*Extern.*, in certain cutan. eruptions, corneal opacities (1–2 drops), & in enema (1–2 tabsp.).—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose 10 cc. (2½ fl. dr.).—A suitable corrigent is peppermint oil (abt 1:450).—CAUT.: Keep fr. air & light.

Oil Cod-Liver Ferrated

Brownish-red liq.—Cont. 1% ferric benzoate.—ACTION: Tonic; Alter.; Nutrient.—USES: Scrof. & anemia.—DOSE: 4–12 cc. (60–180 M) 2–3 t.p.d.

OIL COGNAC—see Ethyl Oenanthat, Natural

OIL "COLZA"—see Oil Rapeseed

Oil Copaiba—U.S.P. VIII; B.P.

Volat. oil fr. balsam of copaiba (us'ly *Mara-caibo*).—Colorl., or pale-yellow liq.—SOL.: Absol. A., 20 A. (90%), B.P.C.; E., CS₂.—SP. GR.: 0.895–0.905 at 25° C., & increas. w. age; 0.896–0.910 at 15.5° C., B.P.—BOIL.: 250°–275° C., B.P.—OPT. ROT.: –7° to –35°, B.P.—CONSTIT.: Chiefly caryophyllene.—ACTION: Antisept.—USES: Gonorr., gleet, bronchial catarrh, & o. dis. of muc. membr.—DOSE: 0.3–1.3 cc. (5–20 M); aver. dose 0.5 cc. (8 M).

OIL COPRA—see Oil Coconut

Oil Coriander—U.S.P. X; B.P.

Volat. oil fr. dried ripe fruit *Coriandrum sativum*, L.—Colorl., or pale-yellow liq.—SOL.: All proport. A., 3 vol. 70% A.; also in C., E., glacial acetic acid.—SP. GR.: 0.863–0.875 at 25° C., U.S.P.; 0.870–0.885 at 15.5° C., B.P.—OPT. ROT.: +8° to +13°.—CONSTIT.: Chiefly

coriandrol (*d*-linalool; 45%–65%, B.P.C.); *d*-pinene; terpinine; geraniol; borneol.—**ACTION:** Carmin.; Anodyne; Tonic.—**USES:** *Intern.*, colic, cramps, & to correct nausea & griping of o. remed.; also manuf. liqueurs, & in baking.—*Extern.*, neuralgic & rheumatic pains.—**DOSE:** 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

Oil Cotton Seed—U.S.P. X; B.P.C.

Fixed oil fr. seeds of cultivated varieties of *Gossypium herbaceum*, L., or of o. spec. G.—Pale-yellow, oily, odorl. liq.—**SOL.:** C., E., CS₂, petrol. E.; sltly in A.—**SP. GR.:** 0.915–0.921 at 25° C., U.S.P.; 0.918–0.925 at 15.5° C., B.P.C.—**Alm.** solid at 0° to –5° C.—**SAPON.** No.: 190–198.—**I-No.:** 105–114; 102–108, B.P.C.—**USES:** Inst. of olive or expressed almond oil in manuf. soaps, oleomargarin, lard substitute, as salad & cooking oil, packing fish, manuf. glycerin, leather dressings, lubricant, fuel, cosmetics.

OIL CRISPMINT—see Oil Spearmint

Oil Crispmint

Oil Curled Mint.—Vol. oil fr. *Mentha crispa*, L.—Colorl., yellow, or greenish-yellow liq.—Resembles Oil Spearmint (*q.v.*) in physical & o. properties, constituents, uses, etc.

Oil Croton Merck—U.S.P. X

Fixed oil expressed fr. seeds *Croton Tiglium*, L.—Pale-yellow or brownish-yellow, rather viscid liq.—**SOL.:** Sltly A. (solubility increas. w. age), freely in C., E., & oils, U.S.P.; (0.5 absol. A., B.P.; petrol. E., CS₂, oil turpent. & glac. acet. acid, B.P.C.).—**SP. GR.:** 0.935–0.950 at 25° C., U.S.P.; (0.940–0.960 at 15.5° C., B.P.).—**SAPON.** No.: 200–215.—**I-No.:** 104–110; (102–106, B.P.).—**ACTION:** Drastic Purg.; Rubef.—**USES:** *Intern.*, obstinate constip., lead colic, dropsy, neuralg., cramps, amenor., & epilepsy.—*Extern.*, chron. artic. rheum., neural., headache, toothache, & indol. swell.; hypoderm. to nevi.—**DOSE:** 0.03–0.12 cc. (½–2 M); aver. dose, 0.06 cc. (1 M).—**MAX. D.:** 0.12 cc. (2 M), single; 0.15 cc. (2½ M) p. day.—**ANTID.:** Stomach siphon, oils, mucilage, opium, morphine hypoderm., cocaine, &c.—**In VETER. MED.** w. castor oil as drastic cath., *cattle*, 15–30 drops; *horses*, 10–20 drops; *sheep & goats*, 8–12 drops; *pigs*, 5–10 drops; *dogs*, 1–5 drops; *cats & fowl*, ¼–1 drop.—**CAUT.:** Poison! Exercise greatest care in tasting. Keep fr. light & air.

OIL, CRUDE—see Petroleum, Crude

Oil Cubeb—U.S.P. IX; B.P.

Volat. oil fr. unripe fruit *Piper Cubeba*, L. fil.—Colorl., pale-green, or yellowish liq.—**SOL.:** 18 A. (90%), & all prop. absol. A., B.P.C.; C., E.—**SP. GR.:** 0.905–0.925 at 25° C., U.S.P.; 0.910–0.930 at 15.5° C., B.P.—**OPT. ROT.:** –20° to –40°.—**CONSTIT.:** Dipentene, cadinene, cubeb-camphor.—**ACTION:** Antisep.—**USES:** Gonorr., gleet, chron. bronch., & cyst.—**DOSE:** 0.3–1 cc. (5–15 M); aver. dose, 0.5 cc. (8 M).

OIL CURLED MINT—see Oil Crispmint

Oil Cumin

Volat. oil fr. fruit *Cuminum Cyminum*, L.—Colorl. to yellow liq.—**SOL.:** 3 to 10 A. (80%).—**SP. GR.:** 0.910–0.930 at 15° C.—**OPT. ROT.:** +4° to +8°.—**CONSTIT.:** Cymene; cuminaldehyde (cuminol).—**ACTION:** Carminative.—**USES:** *Intern.*, like oil caraway.—*Extern.*, w. expressed oil nutmeg 1:10 in colicky pains, partic. in childr.—**DOSE:** 0.06–0.2 cc. (1–3 M).

Oil Cypress

Fr. lvs & young branches of *Cupressus sempervirens*, L.—Yellowish liq.—**SOL.:** 2–6 A. (90%).—**SP. GR.:** 0.88–0.89 at 15° C.—**OPT. ROT.:** +4° to +18°.—**CONSTIT.:** Furfural; *d*-pinene; *d*-camphene; cymene; *d*-terpineol; *l*-cadinene; sylvestrene; & cypress camphor.—**ACTION:** Antisep.; Antispasm.—**USES:** Whoop-cough.—**APPLIC.:** Mix w. 5 vols A., & of this mixt. sprinkle 15 cc. (4 fl. dr.) 3–4 t.p.d. over coverlet, pillow, & underwear of child; applic. may be repeated 1–2 times during night if recurring attacks unusually severe.

Oil Dill—B.P.

Volat. oil fr. fruit *Peucedanum graveolens*, Benth. & Hook. fil.—Colorl. to pale-yellow liq.—**SOL.:** 3 A. (90%).—**SP. GR.:** 0.900–0.915 at 15.5° C.—**OPT. ROT.:** +70° to +80°.—**CONSTIT.:** Chiefly carvone (carvol; 40%–60%); limonene; phellandrene; o. terpenes.—**ACTION:** Carminative.—**USES:** Flavor. o. remed., &c.—**DOSE:** 0.03–0.2 cc. (½–3 M).

OIL, DIPPEL'S—see Oil Animal, Rectified

OIL, DUTCH—see Oil Turpentine, Sulphurated

OIL DWARF PINE NEEDLES—see Oil Pinus Pumilio

OIL EARTHNUIT—see Oil Arachis

Oil Ergot

Fixed oil fr. sclerotium of *Claviceps purpurea*, Tulasne.—Brown liq.—**SOL.:** A., alkal. soluts.—**SP. GR.:** Abt 0.924.—**CONSTIT.:** Cholesterin, & olein- & palmitin-triglycerides w. small quant. butyric & acetic acids.—**ACTION:** Lax.; sltly Emmen.

Oil Erigeron—U.S.P. VIII; B.P.C.

Oil of Canada Fleabane.—Volat. oil fr. fresh, flowering herb *Erigeron canadensis*, L.—**SOL.:** 1 A.; C., E.—**SP. GR.:** 0.845–0.865 at 25° C., U.S.P. VIII; 0.850–0.870 at 15.5° C., B.P.C.—**BOIL.:** 175° C., B.P.C.—**OPT. ROT.:** Not below +45°; +52° to +84°, B.P.C.—**CONSTIT.:** *d*-limonene; aldehydes.—**ACTION:** Antisep.; Hemostatic.—**USES:** Diarr., dysent., hemorrhages of intern. org., uremic poison., cyst., Bright's dis.—**DOSE:** 0.3–2 cc. (5–30 M).—**CAUT.:** Keep cool, & fr. light.

Oil Ethereal Merck—N.F. V

Mixt. eq. vols ether & heavy oil wine.—Alm. colorl., volat. liq.; pecul., arom. odor; pungent, bitter taste.—**SOL.:** A., C., E.—**SP. GR.:** Abt 0.905 at 25° C.—**ACTION:** Calmative; Antispasm.—**USES:** Prepar. comp'd spirit ether (Hoffmann's anodyne).

OIL, ETHYL MUSTARD—see Ethyl Thiocarbimide

Oil Eucalyptus Merck—U.S.P. X

Volat. oil fr. *Eucalyptus globulus* & some o. spec. of *E.*—Colorl., or pale-yellow liq.; camph. odor.—SOL.: 4 vol. 70% A., U.S.P.; (0.3 A. [90%], all proport. absol. A., oils, fats, B.P.C.).—SP. GR.: 0.905–0.925 at 25° C., U.S.P.—OPT. ROT.: –10° to +10°—CONSTIT.: Chiefly eucalyptol (cajuputol, cineol; not less than 70% by vol., U.S.P.); valeraldehyde; butyraldehyde; capronaldehyde; & *d*-pinene (eucalyptene).—ACTION: Antisep.; Antipyr.; Disinf.; Vermifuge.—USES: *Intern.*, intermit. & remit. fever, malaria, scarlet fever, cholera, bronch., cyst., ankylostomiasis, typhoid, abnormal gastric fermentations, & dysent.; also to expel ascarides & oxyuria; by inhal. in asthma or catarrh, pulmon. gangrene, diphth., & influenza.—*Extern.*, skin dis. (1:5 oil), & in 25% oint. in pulm. tuberc.—DOSE: 0.3–1 cc. (5–15 M); aver. dose, 0.5 cc. (8 M). In *typhoid*, 0.6–2 cc. (10–30 M); in *ankylostomiasis*, 1.3 cc. (20 M) followed in 1 hr by a like dose, & given fasting; in *tuberc.*, 0.5 cc. (8 M) incr. grad. to 4 cc. (60 M) of a 5%–10% solut. by intratracheal inj.

OIL EUROPEAN PENNYROYAL—see Oil Pulegium

Oil Fennel—U.S.P. X; B.P.C.

Volat. oil fr. dried ripe fruit *Foeniculum vulgare*, Mill.—Colorl., or pale-yellow liq.—SOL.: 8 vol. 80% A., 1 vol. 90% A.—SP. GR.: 0.953–0.973 at 25° C., U.S.P.; 0.960–0.990 at 15.5° C., B.P.C.—SOLIDIF.: Not below +3° C., U.S.P.—OPT. ROT.: +12° to +24° at 25° C., U.S.P.; +6° to +20° at 15.5° C., B.P.C.—CONSTIT.: Anethol (chiefly, 50%–60%, B.P.C.); fenchone (18%–20%, B.P.C.); pinene; phellandrene; limonene; dipentene.—ACTION: Carmin.; Corrigent.—USES: Cover taste of unpleas. remed., quiet babies, relieve flatus.—DOSE: 0.06–0.3 cc. (1–5 M); aver. 0.1 cc. (1½ M).

Oil Fir

Oil Silver Pine (or Fir).—Volat. oil fr. needles & young twigs of *Abies Picea*, Lindl. (*Abies pectinata*, D. C.; *Picea excelsa*, Link; *Pinus Abies*, DuRoi), (*Silver Fir*).—Colorl., limpid liq.; balsamic odor; terebinthinate taste.—SOL.: 5 A. (90%), E.—SP. GR.: 0.869–0.875 at 15° C.—OPT. ROT.: –20° to –59°.—CONSTIT.: *l*-pinene; *l*-limonene; *l*-bornyl acetate.—ACTION: Antisep.; Alter.—USES: *Extern.* by inhal. in var. bronchial affect., rheum., &c.

do. Siberian—B.P.

Oil Pine; Oleum Abietis.—Volat. oil fr. fresh lvs of *Abies sibirica*, Ledeb.—Colorl. liq.; arom. odor & pung. taste.—SOL.: 1 A. (90%).—SP. GR.: 0.900–0.920 at 15.5° C.—OPT. ROT.: –32° to –42°.—CONSTIT.: 30%–40% esters calcul. as bornyl acetate (B.P.C.).—USES: Inst. of oil of *Pinus pumilio*.

OIL FIR-WOOD—see Oil Pine Needles

OIL FLAXSEED—see Oil Linseed

OIL FLEABANE, CANADA—see Oil Erigeron

OIL, FUSEL—see Alcohol Amylic

“OIL GARLIC”—see Allyl Sulphide

Oil Garlic

Volat. oil fr. bulb or entire plant *Allium sativum*, L.—Yellow liq.; disagre. garlic odor.—SP. GR.: 1.046–1.057 at 15° C.—Opt. inactive.—CONSTIT.: Chiefly $C_6H_{10}S_2$ (abt 60%); $C_6H_{12}S_2$, $C_6H_{10}S_3$; & allied bodies, but no allyl sulphide.—ACTION: Stim.; Expector.; Diur.; Diaph.—USES: Hyst., nerv. affect., delir. trem., &c.—DOSE: 0.12–0.36 cc. (2–6 M).—See also Allyl Sulphide.

OIL GAULTHERIA—see Methyl Salicylate

Oil Geranium—B.P.C.

Oil Rose Geranium; Oil Pelargonium.—Volat. oil fr. lvs *Pelargonium odoratissimum*, L., & allied species.—Colorl., greenish, or brownish liq.—SOL.: 2–3 A. (70%), E.—SP. GR.: 0.890–0.906 at 15.5° C.—CONSTIT.: Chiefly geraniol (content varies in French, Algerian, Spanish, & Réunion oils); citronellol.—USES: Perfume f. toothpowders, oints, etc., & in perfumery.

do. —East Indian

Turkish Geranium, Palmarosa, Indian Grass, or Rusa, Oil.—Fr. *Andropogon Schoenanthus*, L., & allied sp., grown in India (not Turkey).—Colorl. or light-yellow liq.; pleas. rose odor.—SOL.: 3 A. (70%).—OPT. ROT.: +1°41' to –1°55'.—CONSTIT.: Geraniol (76%–93%); citronellol; geraniol esters; dipentene.—USES: Perfume.

OIL, GINGELLY—see Oil Sesame

Oil Ginger

Volat. oil fr. rhizome *Zingiber officinale*, Roscoe.—Yellowish, viscid liq.—SOL.: Sltly A.—SP. GR.: 0.875–0.885 at 15° C.—OPT. ROT.: –25° to –45°.—CONSTIT.: A sesquiterpene; *d*-camphene; phellandrene.—ACTION: Stomachic; Carmin.; Digestive.—USES: Dysent., flatulent colic, dyspep.; & in tooth washes, ginger essence, liqueurs, etc.—DOSE: 0.06–0.25 cc. (1–4 M) on sugar or in alcoh. solut.

OIL GINGILLI—see Oil Sesame

OIL, GRAIN—see Alcohol Amylic

OIL GRAPES—see Ethyl Oenanthate, Natural

OIL GREEN—see Chromium Oxide, Anhydrous

OIL GROUNDNUT—see Oil Arachis

OIL GYNOCARDIA—see Oil Chaulmoogra

OIL HAARLEM—see Oil Turpentine, Sulphurated

Oil Hedeoma—U.S.P. VIII; B.P.C.

Oil of American Pennyroyal.—Volat. oil fr. lvs & flowering tops of *Hedeoma pulegioides*, L., Persoon.—Pale-yellow liq.—SOL.: 2 vol. 70% A., C., E., CS_2 , glacial acetic acid.—SP. GR.: 0.920–0.935 at 25° C., U.S.P. VIII; 0.925–0.940 at 15.5° C., B.P.C.—OPT. ROT.: +18° to +22°; +18° – +35°, B.P.C.—CONSTIT.: Pulegone (chiefly); also 2 ketones, & formic, isoheptic, & acetic acids.—ACTION: Tonic; Carmin.; Emmen.—USES: Amenor., flatulent colic, nausea, &c.—DOSE: 0.06–0.3 cc. (1–5 M).

Oil Hops

Volat. oil fr. strobiles of *Humulus Lupulus*, L.—Light-yellow to brownish liq.—SOL.: E.; v. sltly A.—SP. GR.: 0.855–0.880 at 15° C.—OPT. ROT.: +0° 28' to +0° 40'.—CONSTIT.: Terpenes; humulene (67%).—ACTION: Sed.; Nar.—USES: Nerv. debil., insom., & delirium.—DOSE: 0.06–0.3 cc. (1–5 M).

OIL HORSEMENT—see *Oil Monarda*

Oil Hyoscyamus—Infused

Arachis oil (10), w. some A. & NH₄OH, heated w. hyoscyamus leaves (1).—Brownish-green, oily liq.; odor & taste of hyoscyamus.—ACTION: Sed.; Analges.—USES: Relieve the cough of phth. patients, & in peritonitis, intest. inflammation, etc. Chiefly *extern.*, f. inunctions w. mercurial oint., camphor liniment, chloroform, & the like, in rheumatic affect.; also in instill. in the extern. ear, & in enemas.—DOSE: 0.06–0.3 cc. (1–5 M).

do. —Expressed

Fixed oil obt. by express. seeds *Hyoscyamus niger*, L.—Not narcotic; possesses only the properties of a fatty oil.

Oil Hyssop

Volat. oil fr. *Hyssopus officinalis*, L.—SOL.: 2–4 A. (80%).—BOIL.: Abt 200° C.—SP. GR.: 0.925–0.940 at 15° C.—OPT. ROT.: –17° to –23°.—SAPON. NO.: 1.4.—ACTION: Carmin.; Stim.; Sudor.—USES: Diar., flatulent colic, dyspep., &c.—DOSE: 0.06–0.3 cc. (1–5 M).

OIL INDIAN GRASS—see *Oil Geranium*, East Indian

Oil Juniper Berries—U.S.P. X; B.P.

Volat. oil fr. dried ripe fruit *Juniperus communis*, L.—Colorl. to pale-greenish-yellow liq.—SOL.: 4 A., U.S.P.; 20 A. (90%), 1 absol. A., CS₂, B., C., amyl A., B.P.C.—SP. GR.: 0.854–0.879 at 25° C., U.S.P.; 0.862–0.890 at 15.5° C., B.P.—OPT. ROT.: 0° to –15°, U.S.P.; –3° to –15°, B.P.—CONSTIT.: Pinene, cadinene, juniper camphor.—ACTION: Diur.; Carmin.; Stim.—USES: *Intern.*, & *extern.*, in abdominal dropsy, vesical & urinary dis., paralyses, & gouty & rheumat. affections.—*Techn.*, in manuf. liqueurs (gin, &c.).—*Surg.*, preserving catgut ligatures.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).—VETER. MED., *intern.*, as diur. & stomachic, & *extern.*, in liniments.

Oil Juniper Wood

Volat. oil fr. wood or branches of *Juniperus communis*, L., distil. w. W.—Colorl. to yellowish, turpentine-like liq.; weak odor of juniper.—SOL.: A.—USES: Popularly as liniment in rheum. & paralysis, & in veter. medicine.—CAUT.: Not to be used f. preserv. catgut or silk.—NOTE: Not "Oil of Cade" (which see).

OIL JUNIPER, Empyreumatic } see *Oil Cade*
OIL JUNIPER TAR }

Oil Lard—U.S.P. VIII; B.P.C.

Fixed oil expressed fr. lard at a low temperat.—Colorl. or pale-yellow liq.—SOL.: B., C., E.,

CS₂; sltly boil., insol. cold, A.—SP. GR.: 0.905–0.915 at 25° C., U.S.P.; 0.910–0.920 at 15° C., B.P.C.—SAPON. NO.: 195–197.—I-No.: 56–74.—CONSTIT.: Olein, stearin.—USES: Pharm.; *techn.*, as lubricant, illuminant, manuf. soap, & f. oiling wool.

Oil Laurel—Expressed

Fixed oil obt. by express. fresh crushed fruit of *Laurus nobilis*, L.—Greenish, fatty substce consist. of a mixt. of chiefly trilauren w. a volat. oil, & the so-called laurel camphor; green color due to presence of chlorophyll.—SOL.: B., E.—MELT.: Abt 40° C.—CONSTIT.: Chiefly laurostearin.—USES: In irritant & resolvent embrocations in swellings, rheumat. colic, gastric pains, etc.; said to keep flies & gnats fr. humans & animals; also in veter. medicine as appl. to swellings, rheumat., inflam. of bones, joints & tendons, etc.

do. —Volatile

Oil of Sweet Bay.—Volat. oil fr. lvs of *Laurus nobilis*, L.—Yellowish to greenish liq.—SOL.: A., C., E.—SP. GR.: 0.92–0.93 at 15° C.—OPT. ROT.: –15° to –18°.—CONSTIT.: Pinene; cineol; eugenol.—ACTION: Excitant; Narcotic.—USES: Perfume f. external remedies. Rarely used intern.—DOSE: 0.02–0.2 cc. (⅓–3 M).

Oil Lavender—U.S.P. X; B.P.

Volat. oil fr. fresh flowering tops of *Lavandula Spica*, L. (*L. vera*, D. C.; *L. officinalis*, Chaix).—Colorl. or yellow liq.—SOL.: 3 vol. 70% A., U.S.P.; absol. A., CS₂.—SP. GR.: 0.875–0.888 at 25° C., U.S.P.; 0.883–0.900 at 15.5° C.; B.P.—OPT. ROT.: –3° to –10° U.S.P.—CONSTIT.: Chiefly *l*-linalyl acetate (not less than 30%, U.S.P.) & linalool; also pinene, limonene, geraniol, & some cineol; not less than 7%–11% esters in English oil, or not less than 30% esters in foreign oil, calculated as linalyl acetate, B.P.—ACTION: Stim.; Tonic; Carminative.—USES: *Intern.*, & *extern.* in hysteria, headache, etc. Chiefly *techn.*, as perfume & flavor.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).—CAUT.: Keep cool, & protect fr. light.

Oil Lemon—U.S.P. X; B.P.

Volat. oil expressed fr. fresh peel of *Citrus medica* var. *Limonium* (Risso) Hooker fil. (Lemon).—Pale-yellow liq.—SOL.: 3 A., absol. A., CS₂, glac. acetic acid, U.S.P.—SP. GR.: 0.851–0.855 at 25° C., U.S.P.; 0.857–0.860 at 15.5° C., B.P.—OPT. ROT.: +57° to +64°, U.S.P.—CONSTIT.: *d*-limonene, terpinene, & phellandrene (altogether abt 90%); *l*-limonene; citral (not less than 4% aldehydes calculated as citral, U.S.P., B.P.); citronella; geranyl acetate; pinene; sesquiterpene.—ACTION: Stim.; Carmin.—USES: Perfume, & flavor f. liqueurs, pastry, foods, beverages, etc.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).—CAUT.: Keep fr. light & air.

OIL LEMON BALM—see *Oil Balm*

Oil Lemon Grass—B.P.C.

Indian Oil Verbena; Indian Melissa Oil.—Volat. oil fr. *Cymbopogon* (*Andropogon*) *citrat*us, Stapf, & of *C. flexuosus*, Stapf.—Yellowish-brown liq.—SOL.: 2 A. (70%).—Sp. Gr.: 0.880–0.905 at 15.5° C.—OPT. ROT.: +3° to –3°.—CONSTIT.: Citral (chiefly; 70%–85%); methyl-heptenone; citronellal; geraniol; limonene; dipentene.—ACTION: Stim.; Carmin.—USES: Perfume, & in veter. liniments.—DOSE: 0.03–0.2 cc. ($\frac{1}{2}$ –3 M).

Oil Linaloe

Volat. oil distil. fr. a Mexican wood fr. *Bursera delpechiana* Poiss., & prob. fr. o. sp. of B.—Colorl. to yellowish liq.; pleas. odor.—SOL.: 2 A. (70%).—Sp. Gr.: 0.875–0.890 at 15° C.—OPT. ROT.: –5° to –12°.—SAPON. No.: 1–10.—CONSTIT.: Linalool (licareol); geraniol; methyl-heptenone.—USES: Perfume.

Oil Linseed—U.S.P. X; B.P.

Flaxseed Oil.—Fixed oil obt'd by express. seed *Linum usitatissimum*, L.—Yellowish oily liq.—SOL.: Sltly A., misc. w. C., E., benzin, CS₂, or oil turpentine, U.S.P.—Sp. Gr.: 0.925–0.935 at 25° C., U.S.P.; 0.930–0.940 at 15° C., B.P.—Does not congeal above –20° C., B.P.—SAPON. No.: 187–195.—I.No.: Not less than 170.—ACID No.: Abt 4, U.S.P.; not over 3.0, B.P.—CONSTIT.: Chiefly linolein; also linoleic acid (glycerides of linolic, linoleic & isolinoleic acids); olein; stearin; palmitin; & myristin.—ACTION: Laxative: Emollient.—USES: Intern., mild cathartic & f. piles.—Extern., warm oil is one of the best remedies f. burns by fire or steam; w. lime-water (Carron Oil) f. burns, or w. G. f. frostbites; enemas f. constip.—Techn., in varnishes, paints, putty, &c.; heated w. oxides of Pb & Mn it affords siccatives; oil-cloths; oiled silk; factice; mixed w. cork powd. it forms linoleum; printing inks; artif. rubber; tracing cloth; tanning & enameling leather; applied to paper & fabrics renders them water-proof & tough.—DOSE: 15–30 cc. ($\frac{1}{4}$ –1 fl. oz.).—VETER. MED., as lax. & vehicle, *cattle* 150–500 cc. (5–16 fl. oz.); *horses*, 100–300 cc. (3 $\frac{1}{2}$ –10 fl. oz.); *sheep*, *goats*, & *pigs*, 50–150 cc. (1 $\frac{1}{2}$ –5 fl. oz.); *dogs* 10–50 cc. (2 $\frac{1}{2}$ –12 $\frac{1}{2}$ fl. dr.); *cats*, 5–10 cc. (75–150 M); *fowl*, 1–5 cc. (15–75 M).

Oil Linseed Sulphurated

Sulphurated Linseed Oil; Thiolic Acid; Balsam Sulphur.—Solut. sulphur in linseed oil prepared by aid of heat.—Brownish-red viscid oil.—SOL.: Oil turpentine.—ACTION: Antisep.—USES: Scabies, pruritus, torpid ulcers, & parasitic skin dis.; also preparing Haarlem Oil (see Oil Turpentine Sulphurated).

Oil Mace

Volat. oil fr. mace, the arillode of *Myristica fragrans*, Houttuyn.—Closely resembles oil of nutmeg.—Colorl. or sltly yellow liq.—SOL.: 3 A. (90%).—Sp. Gr.: 0.870–0.930 at 15° C.—OPT. ROT.: +7° to +30° at 20° C.—CONSTIT.: Pinene; dipentene; myristic acid; myristicol; myristicin; & a phenolic substce.—ACTION:

Carminative.—USES: Intern. as resolvent of biliary calculi.—Extern., in toothache (on cotton in cavity), & in liniments.—Techn., flavor, chiefly in foods.—DOSE: 0.03–0.2 cc. ($\frac{1}{2}$ –3 M).

Oil Male Fern

Volat. oil fr. rhizome *Dryopteris Filix-mas*, Schott, & *D. marginalis*, A. Gray.—Yellow liq.—SOL.: Absol. A., E.—Sp. Gr.: 0.85–0.86 at 15° C.—ACTION: Anthelminthic.—USES: Tape-worm rem.—DOSE: 0.75–1.5 cc. (12–25 M).—CAUT.: Not the oleoresin of male fern in common use f. tape-worm.

Oil Marjoram

Volat. oil fr. *Origanum Majorana*, L.—Yellow or greenish-yellow liq.—SOL.: 2 A. (80%).—Sp. Gr.: 0.890–0.910 at 15° C.—OPT. ROT.: +5° to +18°.—SAPON. No.: 21.5.—CONSTIT.: Terpenes (40%, chiefly terpinene); *d*-terpineol.—ACTION: Tonic; Carmin.—USES: Intern., rarely, to hasten eruption in measles, scarlat., &c.—Techn., as perfume.—DOSE: 1–2 drops.—CAUT.: The oil commonly called "Oil of Origanum" is oil of thyme.

OIL MARJORAM, WILD—see Oil Origanum

Oil Matico

Volat. oil fr. lvs *Piper angustifolium*, R. & P.—Yellow liq.—SOL.: 1 A. (90%); 10 A. (80%).—Sp. Gr.: 1.06–1.13 at 15° C.—OPT. ROT.: –0° 25' to +5° 34'.—CONSTIT.: Matico camphor; asarone.—ACTION: Antisep.; Stim.; Tonic.—USES: Intern., in acute, subacute, & chron. gonorrh., chronic vaginitis, & o. dis. of urin. passages; dysent., & bronch. affect.—Extern., w. alum, or tannin, inclosed in caps. f. insertion into vagina as antisep.—DOSE: 0.03–0.06 cc. ($\frac{1}{2}$ –1 M).

OIL MELISSA—see Oil Balm

OIL MELISSA, INDIAN—see Oil Lemon Grass

OIL, METHYL MUSTARD—see Methyl Thiocarbimide

OIL MILFOIL—see Oil Yarrow

OIL, MINERAL—see Petroleum, Crude

OIL, MINERAL, WHITE—see Petrolatum Liquid

OIL MINT, CURLED—see Oil Crispmint

OIL MIRBANE—see Nitrobenzene

Oil Monarda

Oil Horsemint.—Volat. oil fr. *Monarda punctata*, Willd.—Yellowish-red to brownish liq.; mint odor; thyme-like taste.—Sp. Gr.: 0.930–0.940 at 15° C.—Sltly dextrogyrate.—CONSTIT.: Thymol (61%); cymene.—ACTION: Stim.; Carmin.—USES: Flatulent colic, dyspeps., & diar. affect.—DOSE: 0.06–0.6 cc. (1–10 M).

OIL MOUNTAIN PINE—see Oil *Pinus Pumilio*

"Oil Mullein" Merck—So-called

Practic. Tincture *Verbascum* (Mullein flowers; *Verbascum thapsus*), cont'g abt 40–55% A.

Oil Mururé

Dark-brown, fatty oil fr. *Urostigma cystopodum*, a Brazilian Moraceæ.—**USES:** *Intern.*, syph.—*Extern.*, rheum. & syph.—**DOSE:** Teaspoonful.

Oil Mustard Merck—Artificial—U.S.P. X

Allyl Isothiocyanate or Isosulphocyanide (at least 93%, U.S.P.).—Ident. w. the true dist. oil.—**PROPERTIES, USES, etc.:** As of the following.

do. Merck—True, Distilled—U.S.P. X

$\text{CH}_2\text{CH.CH}_2\text{SCN} = 99.12$.—**Volat.** oil fr. dried ripe seeds *Brassica nigra*, L., or *B. Juncea*, Cosson.—**Colorl.** or pale yellow liq.; v. pung. odor; acrid, burning taste.—**SOL.:** All proport. A., E., CS_2 , U.S.P.; (B., amyl A., petrol. E., 10 vol. 70% A., & 50 W., B.P.C.).—**BOIL.:** 148° – 154° C.—**SP. GR.:** 1.013–1.020 at 25° C., U.S.P.; (1.014–1.025 at 15.5° C., B.P.).—**Opt.** inactive.—**CONSTIT.:** Chiefly allyl isothiocyanate (not less than 93%, U.S.P., B.P.) (w. traces of CS_2 & allyl cyanide).—**ACTION:** Rubefac.; Stim.; Vesicant.—**USES:** *Intern.*, cholera, pernicious intermittent fever, colic, dropsy.—*Extern.*, as substit. f. mustard poultices & leaves, or in alcohol. solut., in pleuritic neural., sciatica, toothache, or rheumat. pains.—**DOSE:** 0.008–0.015 cc. ($\frac{1}{8}$ – $\frac{1}{4}$ M); aver. dose, 0.008 cc. ($\frac{1}{8}$ M). Best vehicle f. administration is W.—**APPL.:** as rubefac., in 2% alcohol. solut.

do. —Expressed—B.P.C.

Fixed oil expressed fr. seeds of *Brassica alba* & *B. sinapoides* (mustard seed).—Straw-colored to brownish-yellow liq.—**SP. GR.:** 0.914–0.916, & 0.916–0.920, respectively, at 15.5° C.—**SOLIDIF.:** -8° to -16° , & -17° , respectively.—**SAPON. NO.:** 170–174, & 173–175, respectively.—**I-NO.:** 92–97, & 96–110, respectively.—**USES:** *Intern.*, malnutrition.—*Extern.*, in liniments.—*Techn.*, manuf. oleomargarine, soap, &c.; lubricant; also as table oil.—**DOSE:** 30–75 cc. (1–2 $\frac{1}{2}$ fl. oz.), daily.

Oil Myrcia—N.F. V; B.P.C.

Oil of Bay; Oil Pimento Leaves, B.P.C.—**Volat.** oil fr. lvs *Pimenta* (*Myrcia*) *acris*, Kostel.—Yellow to brownish-yellow liq.; pleas. odor; sharp, spicy taste.—**SOL.:** 1 A., CS_2 , glac. acet. acid.—**SP. GR.:** 0.962–0.990 at 25° C., N.F.; 0.945–1.030 at 15° C., B.P.C.—**Opt.** ROT.: Not exceed. -3° , N.F.; up to -6° , B.P.C.—**CONSTIT.:** Chiefly eugenol (40%–55%, B.P.C.); myrcene; chavicol; methyl-eugenol; methylchavicol; citral; & *l*-phellandrene.—**USES:** Manuf. bay rum.

Oil Myristica—Expressed

Nutmeg Butter.—Fixed oil expressed fr. *Myristica fragrans* (nutmeg).—Mixt. of fat, volat. oil, & color. matter.—Orange-red to reddish-brown, soft, solid; odor & taste of nutmeg.—**SP. GR.:** 0.99–0.995 at 15° C.—**MELT.:** 45° – 51° C.—**CONSTIT.:** Chiefly trimyristin.—**ACTION:** Nar.; Carmin.—**USES:** Lack of appetite, flatulent colic; flavor. f. o. remed.—*Extern.*, in liniment & oint. in intestinal colic,

headache, rheumat., etc.—**DOSE:** 0.12–0.3 Gm. (2–5 grn.).

do. —Volatile—U.S.P. X; B.P.

Oil Nutmeg.—**Volat.** oil dist. fr. dried kernels of ripe seed of *Myristica fragrans* (nutmeg).—**Colorl.**, or pale-yellow liq.—**SOL.:** 1 A.; 3 90% A.—**SP. GR.:** 0.859–0.924 at 25° C., U.S.P.; 0.870–0.925 at 15.5° C., B.P.—**Opt. ROT.:** $+12^\circ$ to $+30^\circ$.—**CONSTIT.:** *d*-camphene (abt 80%); *d*-pinene (abt 8%); dipentene; eugenol; isoeugenol; *d*-linalool; *d*-borneol; *l*-terpineol; geraniol (abt 6%); safrol; & myristicin (abt 4%), B.P.C.—**ACTION:** Carmin.—**USES:** Flavor.—**DOSE:** 0.03–0.2 cc. ($\frac{1}{2}$ –3 M); aver., 0.03 cc. ($\frac{1}{2}$ M).

Oil Myrtle

Volat. oil fr. lvs *Myrtus communis*, L.—Yellow to greenish, fragr. liq.—**SOL.:** A., C., E.—**SP. GR.:** 0.890–0.915 at 15° C.—**Opt. ROT.:** $+10^\circ$ to $+30^\circ$.—**CONSTIT.:** *d*-pinene; cineol (eucalyptol); dipentene; camphor.—**ACTION:** Antisept.; Astring.—**USES:** *Intern.*, chronic bronch., dysentery, cyst., pyelitis, hemoptysis, & stim. to muc. membr. of lungs & gen.-urin. organs.—*Extern.*, on compresses.—**DOSE:** 0.03–0.25 cc. ($\frac{1}{2}$ –4 M).—*Subcut.*, in chronic & bronchial catarrh, 5–10 cc. (75–150 M) of a 10% sterile olive oil solut. 1–2 t.p.d.

Oil Neatsfoot

Fixed oil fr. feet of neat cattle.—**SP. GR.:** 0.915 at 15° C.—**ACTION:** Alter.; Lax.; Nutrient.—**USES:** Substit. f. cod-liver oil; also *techn.* f. waterproofing & softening leather, as lubricant, oiling wool, etc.—**DOSE:** 15–30 cc. (4–8 dr.).

OIL NEROLI—see Oil Orange Flower

OIL NEROLI, ARTIFICIAL—see Methyl Anthranilate

Oil Niaouli

Volat. oil fr. lvs *Melaleuca viridiflora*, Soland. (Niaouli), = *M. Leucadendron*, L.—Sltly yellow liq.; arom. odor; pung., refreshing taste, like peppermint.—**SOL.:** A., E., benzin; insol. W., G.—**SP. GR.:** 0.908–0.932 at 12° C.—**Opt.** inact., or sltly dextro- or levogyrate.—**CONSTIT.:** Cineol (abt. 66%); crystallized terpineol (abt 30%); *l*-limonene (?), & *d*-pinene.—**USES:** Bronch., tubercul.—**DOSE:** 0.25 cc. (4 M), 6 t.p.d., in capsules.—**INJ.** 1 cc. (15 M), in sterilized olive oil.—See also Oleogomenol.

OIL NIOBÉ—see Methyl Benzoate

OIL NUT—see Juglans

OIL NUTMEG—see Oil Myristica, Volatile

Oil Olive—U.S.P. X; B.P.

Sweet Oil.—Fixed oil expressed fr. ripe fruit *Olea europæa*, L.—Pale-yellow, or greenish-yellow, non-drying oily liq.; begins to bec. turbid at abt 10° – 8° C.—**SOL.:** C., E., CS_2 ; sltly in A.—**SP. GR.:** 0.910–0.915 at 25° C., U.S.P.; 0.915–0.918 at 15.5° C., B.P.—**CONSTIT.:** Chiefly olein (abt 93%, B.P.C.); palmitin; arachin; linolin.—**ACTION:** Emoll.; Gentle Lax.;

Nutrient.—**USES:** *Intern.*, constip., worms, corrosive poisons, gallstones, to build up tissues, &c.—*Extern.*, blistered or injured surf.; also as enema in chronic constip. in women (abt 250–500 cc. [8–16 fl. oz.] at a time, before retiring; the enema to be retained so long as possible, & repeated every 2–5 days).—*Techn.*, in ointments, liniments, etc.; also largely used in cooking, & on salads, &c.; manuf. soap; as lubricant; oiling wool, etc.—**DOSE:** 30–60 cc. (1–2 fl. oz.) as laxat.; aver., 30 cc. (1 fl. oz.); in hepatic colic, abt 50–200 cc. (1½–6 fl. oz.).—**CAUT.:** Becomes rancid on exposure, hence keep in well closed containers.

Oil Orange—U.S.P. X; B.P.C.

Oil Sweet Orange.—Volat. oil expressed fr. fresh peel of ripe fruit of *Citrus Aurantium* var. *sinensis*, L.—Yellow liq.—**SOL.:** Absol. A., CS₂, glac. acetic acid, U.S.P.; 7 vol. 90% A., B.P.C.—**SP. GR.:** 0.842–0.846 at 25° C., U.S.P.; 0.847–0.854 at 15.5° C., B.P.C.—**OPT. ROT.:** + 94° to + 99°, U.S.P.; + 95° to + 98° at 20° C., B.P.C.—**CONSTIT.:** *d*-limonene (chiefly; at least 90%, B.P.C.); citral; citronellal; decyl aldehyde; methyl anthranilate.—**ACTION:** Carminative.—**USES:** Perfume, flavor, &c.—**DOSE:** 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (½ M).—**CAUT.:** Keep cool & well stoppered.

do. Bitter—N.F. V

Fr. fresh peel of *Citrus Aurantium*, Risso, by expression.—Light-yellow liq.; bitter taste.—**SOL.:** 4 A.; all proport. absol. A.; v. sltly W.—**SP. GR.:** 0.842–0.848, at 15° C.—**OPT. ROT.:** + 88° to + 98°.—**CONSTIT.:** As of oil sweet orange.—**USES:** Flavor., & manuf. liqueurs; perfumery.—**DOSE:** Aver., 0.1 cc. (1½ M).

Oil Orange Flower—N.F. V; B.P.C.

Oil Neroli.—Volat. oil fr. fresh flowers *Citrus Aurantium* (*C. vulgaris* or *C. Bigaradia*, Risso).—Yellowish fluoresc. liq.; bec. brown on expos. to light; v. intense, pleas. odor.—**SOL.:** 1 A.; 1.5–2 A. (80%) w. fine violet fluoresc.—**SP. GR.:** 0.68–0.88 at 25° C.—**OPT. ROT.:** + 1° 30' to + 5°—**SAPON. NO.:** 20–52.—**CONSTIT.:** Limonene; *l*-linalool; linalyl acetate (7%–18%); geraniol; some methyl anthranilate; & stearoptene (neroli camphor).—**USES:** Perfume & flavor.—**DOSE:** 0.06–0.2 cc. (1–3 M).—**CAUT.:** Keep cool & fr. air & light.

“OIL ORIGANUM”—see Oil Thyme

Oil Origanum

Oil Wild Marjoram.—Volat. oil fr. flower'g tops of *Origanum vulgare*, L.—Light-yellow liq.—**SOL.:** Eas. A.—**SP. GR.:** 0.870–0.910 at 15° C.—**OPT. ROT.:** –34.4° at 5° C.—**CONSTIT.:** Carvacrol (?); stearoptene.—**ACTION:** Antisep.; Tonic; Excitant; Emmen.—**USES:** *Intern.*, amenor., dysmenor., flatulent colic.—*Extern.*, skin dis., toothache, neuralg., & in liniments f. rheumat. & bruises.—**DOSE:** 0.12–0.6 cc. (2–10 M).—**CAUT.:** The oil commonly called “Oil of Origanum” is oil of thyme.

do. —Cretan

Volat. oil fr. *Origanum creticum*.—Yellowish-red liq.; dark-brown to grayish-black on expos.

to air.—**SOL.:** 3 A. (70%).—**SP. GR.:** 0.94–0.98 at 15° C.—**OPT. ROT.:** Inactive, or less than –1°.—**CONSTIT.:** Carvacrol; cymene; terpenes.—**USES:** Clearing agent in microscopy.

Oil Orris

Volat. oil fr. rhizome of *Iris florentina*, L., & of o. sp. of *Iris*.—Yellowish-wh. to yellow, semi-solid fatty substage; intense odor of dried orris root.—**MELT.:** Abt 44°–50° C.—Slty dextrogyrate.—**ACID NO.:** 213–222.—**SAPON. NO.:** 2–6.—**CONSTIT.:** Chiefly myristic acid (abt 85%); irone (the odorous constit.); methyl myristate; oleic aldehyde; oleic acid.—**USES:** Perfume.

Oil Palm—From Fruit—B.P.C.

Palm Butter.—Fixed, butter-like oil obt'd fr. fruit *Elæis guineensis*, Jacq. (*E. Melanococca*), by boil'g & express'g.—Reddish-yellow to dark dirty-red fatty mass; faint violet odor.—**SP. GR.:** 0.920–0.927 at 15° C.; abt 0.858 at 100° C., B.P.C.—**MELT.:** 27°–42.5° C.—**SAPON. NO.:** 200–205.—**I-NO.:** 53–57.—**CONSTIT.:** Palmitin (alm. entirely); stearin; linolein.—**ACTION:** Emoll.—**USES:** Pharm., & techn., in manuf. of soap & candles; as lubricant.

do. —From Seed

Fatty oil obt'd fr. seed of *Elæis guineensis*, Jacq., by express. or extract.—Wh. to yellowish fat.—**SP. GR.:** 0.952 at 15° C.—**MELT.:** 26°–30° C.—**SAPON. NO.:** 247 (average).—**I-NO.:** Abt 15.—**USES:** *Extern.* in liniments & oint.—*Techn.*, in manuf. soap, & w. cocoanut oil in manuf. plant butter.

OIL PALMAROSA—see Oil Geranium, East Indian

OIL PARAFFIN—see Petrolatum, Liquid

Oil Parsley—B.P.C.

Fr. seed *Carum Petroselinum*, B. & H.—Colorl. to yellowish rather viscid liq.—**SOL.:** A.—**SP. GR.:** 1.05–1.10 at 15.5° C.—**OPT. ROT.:** –5° to –10°.—**CONSTIT.:** Apiol (chiefly); terpene.—**USES:** *Intern.*, as diuret., & also as of apiol.—*Extern.*, destroying vermin.—**DOSE:** 0.02–0.3 cc. (3–5 M).

Oil Patchouli

Volat. oil fr. lvs *Pogostemon Patchouli*, Pellet.—Yellowish or greenish-brown to dark-brown liq.; v. intense & persist. fragrant odor.—**SOL.:** 1 A. (90%).—**SP. GR.:** 0.970–0.995 at 15° C.—**OPT. ROT.:** –50° to –68°.—**CONSTIT.:** Cadinene; patchouli alcohol (or camphor).—**USES:** Perfume.

Oil Peach—Expressed—B.P.C.

Fixed oil expressed fr. seed *Prunus* (*Amygdalus*) *Persica* Stokes, & allied spec.—**SOL.:** C., E., CS₂; partly in A.—**SP. GR.:** 0.918–0.921 at 15.5° C.—**SAPON. NO.:** 189–198.—**I-NO.:** 95–110.—**ACTION:** Cath.; Nutrient.—**USES:** As of almond or olive oil.

do. —Volatile

A volat. oil fr. peach kernels first deprived of their fixed oil.—The volatile oil may be regarded as the equivalent of vol. oil bitter almonds.

OIL PEANUT—see Oil Arachis

OIL, PEAR—see *iso*-Amyl Acetate

OIL PELARGONIUM—see Oil Geranium

OIL PENNYROYAL, AMERICAN—see Oil Hedeoma

OIL PENNYROYAL, EUROPEAN—see Oil Pulegium

Oil Pepper

Oil of Black Pepper.—Volat. oil fr. unripe fruit *Piper nigrum*, L.—Colorl. or yellowish-green liq.—SOL.: Abt 15 A.(90%), C., E.—SP. GR.: 0.87–0.90 at 15° C.—OPT. ROT.: –5° 2' to +2° 27'.—CONSTIT.: Phellandrene; dipentene.—ACTION: Carmin.; Stim.; Antipyr.—USES: Flatulent colic, intermit. fever; & as condiment.—DOSE: 0.06–0.2 cc. (1–3 M).

Oil Peppermint—U.S.P. X; B.P.

Volat. oil fr. fresh flowering plant *Mentha piperita*, L.—Colorl. to pale-yellow liq.—SOL.: 4 A. (70%), U.S.P., B.P.—SP. GR.: 0.896–0.908 at 25° C., U.S.P.; 0.90–0.92 at 15.5° C., B.P.—OPT. ROT.: –23° to –33°, U.S.P.—CONSTIT.: Chiefly menthol, $C_{10}H_{20}O$ (not less than 50% total, free & esters), & 5% esters calc. as menthyl acetate; menthyl isovalerate; menthone; inactive pinene; *l*-limonene; cineol; cadinene; phellandrene; acetic & isovaleric aldehydes; amyl alcohol; dimethyl sulphide.—ACTION: Carmin.; Stim.; Antisep.; Anod.—USES: *Intern.*, flatulence, colic, dysent., nausea, & nerv. affec.—*Extern.*, headache, toothache, rheum., neural., catarrh, hay fever, asthma, &c. Also flavor'g ill-tasting medicines, toothpowders, -pastes, & -washes, &c.; manuf. liqueurs.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

do. —Hotchkiss

Volat. oil fr. plants cultiv. in Wayne Co., New York.—USES: As of oil peppermint, preced.

do. —Japanese

Oil of Poho.—The liq. portion remaining after the separation of the menthol fr. Japanese & Chinese peppermint oils fr. *Mentha arvensis*, L.—Yellow liq.—SOL.: A., E., oils.—USES: *Extern.*, in liniments in neuralgia; toothache.

do. —Mitcham

Volat. oil fr. peppermint cultiv. at Mitcham, Surrey, England.

Oil Pettitgrain

Vol. oil fr. lvs, twigs, & unripe fruit of *Citrus Bigaradia*, Risso.—Yellow liq.—SOL.: 2 A. (80%).—SP. GR.: 0.887–0.900 at 15° C.—OPT. ROT.: +3° 43' to –1° 22'.—SAPON. NO.: 110–245.—CONSTIT.: Linalyl acetate (38%–85%); geraniol; geranyl acetate; limonene.—USES: Perfume.

Oil Phenylmustard

Thiocarbanil.— $C_6H_5.N.CS = 135.12$.—Yellowish liq.—SOL.: A., E.; insol. W.—SP. GR.: 1.135 at 15° C.—BOIL.: 222° C.

Oil Phosphorated—B.P.

1% solut. P diss. in almond oil (warmed to abt 80° C.) w. 1% lemon oil.—Clear, pale-yellow

liq.—SOL.: C., E., & oils.—ACTION: Nerve Stim.; Tonic.—USES: Sexual exhaust., mental failure, melancholia, cerebral softening, chron. skin affect., neural., &c.—DOSE: 0.06–0.3 cc. (1–5 M).—ANTID.: Old oxidized oil of turpentine, copper sulphate, stomach siphon, mucilaginous drinks, brandy.

Oil Pimenta—N.F. V; B.P.C.

Oil of Allspice, or Pimento.—Volat. oil. fr. *Pimenta officinalis*, Lindley.—Colorl., yellow, or reddish liq.; arom. odor; pung., spicy taste.—SOL.: 2 vol. 70% A., 1 vol. 90% A., N. F. V; also in glac. acet. acid, C., E.—SP. GR.: 1.018–1.048 at 25° C., N. F. V; 1.030–1.050 at 15.5° C., B.P.C.—OPT. ROT.: 0° to –4°.—CONSTIT.: Chiefly eugenol (not less than 65%); also a sesquiterpene resin.—ACTION: Carmin.; Stim.; Tonic.—USES: Flatulent colic, & as flavor.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

OIL PIMENTO—see Oil Pimenta

OIL PIMENTO LEAVES—see Oil Myrcia

OIL PINE—see Oil Fir, Siberian

Oil Pine Needles

Oil Scotch Fir; Fir-wood Oil; Oil *Pinus Sylvestris*.—Volat. oil fr. lvs *Pinus sylvestris*, L.—Yellowish liq.—SOL.: 10 A. (90%).—SP. GR.: 0.884–0.886 at 15° C.—OPT. ROT.: +7° 3' to +10°.—CONSTIT.: Dipentene; pinene; sylvestrene; bornyl acetate (3.2%–3.5%); cadinene.—ACTION: Antisep.; Antirheum.—USES: *Intern.*, stim. expector.; by inhal. w. steam in pulmonary dis.—*Extern.*, chron. rheum. & gout.

Oil Pinus Pumilio Merck—U.S.P. X

Oil of Dwarf Pine Needles, or Mountain Pine.—Volat. oil fr. fresh lvs of *Pinus Montana*, Mill. (*P. Pumilio*, Haenke).—Colorl. or faintly yellowish oil; pleas. odor, & bitter taste.—SOL.: 10 A. (80%); U.S.P.—SP. GR.: 0.853–0.869 at 25° C., U.S.P.; 0.863–0.876 at 15.5° C., B.P.C.—OPT. ROT.: –4° 30' to –9°, U.S.P.—CONSTIT.: *l*-pinene; *l*-phellandrene; sylvestrene; dipentene; cadinene; bornyl acetate (abt 3%–7%, B.P.C.).—ACTION: Antisep.; Expector.—USES: Inhalation in bronch. & pectoral affect.; *intern.* in capsules as stim. expectorant; also employed in glandular enlargements, boils, rheumat., gout, & skin dis.—DOSE: 0.3–0.6 cc. 5–10 M).

OIL PINUS SYLVESTRIS—see Oil Pine Needles

OIL POHO—see Oil Peppermint, Japanese

Oil Poppy

Expressed (cold) fr. seeds of *Papaver somniferum*, L.—Pale-yellow drying oil; pleas. odor & taste.—SP. GR.: 0.924–0.927 at 15° C.—USES: Linim. & as substit. f. olive, or almond, oil; also *techn.* (paints, &c.); manuf. soaps.

OIL POTATO-SPIRIT—see Alcohol Amylic

OIL PTYCHOTIS—see Oil Ajowan

Oil Pulegium—B.P.C.

Oil European Pennyroyal.—Volat. oil fr. *Mentha Pulegium*, L.—Yellow or greenish-yellow liq.; arom., mint-like odor; arom. taste.—SOL.: 2 A. (70%).—SP. GR.: 0.930–0.960 at 15.5° C.—OPT.: ROT.: +13° to +35°.—CONSTIT.: Chiefly pulegone (abt 80%).—ACTION: Emmen.—DOSE: 0.06–0.2 cc. (1–3 M).

Oil Rapeseed

"Colza" Oil.—Fixed oil obt'd fr. *Brassica campestris*, var. *Napus*, L. & o. spec. of B.—Pale yellow, rather thick liq. (dark brown when crude).—SOL.: C., E., CS₂.—SP. GR.: Abt 0.914–0.916 at 15.5° C.—SOLIDIF.: –2° to –10° C.—SAPON. No.: 170–177.—I-No.: 95.3–104.6.—USES: *Techn.*, as lubricant, illuminant, tempering steel; manuf. rubber substitutes, margarin, soft soaps, blown oils; oiling woolens.

OIL, RED—see Acid Oleic

OIL, ROCK—see Petroleum, Crude

Oil Rose—B.P.

Otto, Essence, or Attar of Rose.—Volat. oil dist. fr. fresh flrs *Rosa damascena*, L.—Pale-yellowish, transp. highly fragrant liq.; solidif. in the cold.—SOL.: Fatty oils; sltly A.—SP. GR.: 0.854–0.862 at 30° C., B.P.—CONGEAL. & MELT-POINTS: 18°–22° C., U.S.P. VIII.—OPT. ROT.: –2° to –4°, B.P.—SAPON. No.: 10–17.—ACID No.: 0.5–3.0.—CONSTIT.: Geraniol & citronellol (70%–75% of both, B.P.C.) & their esters; stearoptenes; odorous substce.—USES: Perfume.

OIL ROSE GERANIUM—see Oil Geranium

Oil Rosemary—U.S.P. X; B.P.

Volat. oil fr. fresh flowering tops of *Rosmarinus officinalis*, L.—Colorl. or pale-yellow liq.—SOL.: 10 vol. 80% A., U.S.P.; 1 vol. 90% A.—SP. GR.: 0.894–0.912 at 25° C., U.S.P.; 0.895–0.920 at 15.5° C., B.P.—OPT. ROT.: 0° to +15°, U.S.P.—CONSTIT.: Borneol (total not less than 10%, U.S.P., B.P.); esters (not less than 2.5%, U.S.P. [1.8%–75%], calcul. as bornyl acetate); camphor; cineol; *d*- & *l*-pinene; camphene.—ACTION: Stim.; Emmen.; Antispasm.; Rubefacient.—USES: Chiefly f. liniments; somet. intern. in amenor.—DOSE: 0.2–0.36 cc. (3–6 M); aver. dose 0.1 cc. (1½ M).

OIL, ROSIN—see Retinol

Oil Rue—B.P.C.

Volat. oil fr. *Ruta graveolens*, L.—Yellowish to greenish liq.—SOL.: 2–3 vol. 70% A.—SP. GR.: 0.830–0.840 at 25° C.—OPT. ROT.: –1° to +3°, B.P.C.—SOLIDIF.: 8°–10° C.—CONSTIT.: Methylonylketone (at least 90%); methylheptylketone.—ACTION: Irritant; Emmen.; Antispasm.; Rubef.; Anthelm.; Antiepileptic.—USES: *Intern.*, v. rarely in hysteria, colic, amenor., dysmenor.; partic. to be avoided in pregnancy, because v. prone to cause abortion; v. irritating to intestines, when swallowed.—*Extern.*, as vesicant & rubefac.—DOSE: 0.12–0.3 cc. (2–5 M) on sugar or in hot water.

OIL RUSA—see Oil Geranium, East Indian

OIL SANDALWOOD, WHITE, OR YELLOW—see Oil Santal East-Indian

Oil Santal—East-Indian—U.S.P. X; B.P.

Oil of White (or Yellow) Sandalwood.—Volat. oil dist. fr. dried heart-wood *Santalum album*, L.—Pale yellow, somewh. thick liq.; odor & taste of sandalwood.—SOL.: 5 vol. 70% A. at 25° C., U.S.P.—SP. GR.: 0.965–0.980 at 25° C., U.S.P.; 0.973–0.985 at 15.5° C., B.P.—OPT. ROT.: –15° to –20°, U.S.P.—SAPON. No.: 5–15.—CONSTIT.: Chiefly santalol (at least 90% alcohols calcul. as santalol, U.S.P.); santalal.—ACTION: Intern. Antiseptic; Anticatarrah.—USES: Gonorr., prostatitis, gleet, chron. bronch., & inflam. of mucous membr. generally; also perfume.—DOSE: 0.3–1.3 cc. (5–20 M); aver. dose, 0.5 cc. (8 M).—CAUT.: Keep well stoppered, cool, & protected fr. light.

do. —West Indian

Volat. oil fr. *Amyris balsamifera*, L.—Yellow to pale straw-colored, thick liq.—SOL.: Eas. A.; more diffic. sol. than E. I. sandalwood oil in 70% A.—SP. GR.: 0.960–0.967 at 15° C.—OPT. ROT.: +24 to +29°.—USES: As of the East-Indian oil.

Oil Sassafras—U.S.P. X

Volat. oil fr. root *Sassafras variifolium*, O. Kuntze; (*S. officinale*, B.P.C.).—Yellowish to reddish-yellow liq.—SOL.: 2 vol. 90% A.—SP. GR.: 1.065–1.077 at 25° C.; 1.065–1.095 at 15.5° C., B.P.C.—OPT. ROT.: +3° to +4°, U.S.P.—CONSTIT.: Safrol (abt 80%, B.P.C.); eugenol (abt 0.5%); pinene; phellandrene; sesquiterpene; *d*-camphor.—ACTION: Tonic; Diur.; Carmin.; Rubefac.—USES: *Intern.*, syph., skin dis., rheumat., menstrual disturbances, renal & vesical dis., chron. gonorrh., etc.; also as flavoring.—*Extern.*, as rubefac. & anodyne in chron. rheum., as appl. to insect bites & stings, & to correct odor of malodorous remedies.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose 0.1 cc. (1½ M).—CAUT.: Keep well stoppered, cool, & protected fr. light.

Oil Savin—U.S.P. VIII; B.P.C.

Volat. oil fr. fresh tops *Juniperus Sabina*, L.—Colorl. or yellowish liq.—SOL.: 0.5 A. (90%); 15–20 A. (80%).—SP. GR.: 0.903–0.923 at 25° C., U.S.P. VIII; 0.910–0.930 at 15.5° C., B.P.C.—OPT. ROT.: +40° to +60°.—CONSTIT.: Sabinol (abt 10%, B.P.C.) sabinyl acetate (36%–48%, B.P.C.); cadinene; pinene.—ACTION: Irritant; Rubefacient; Diur.; Emmen.—USES: *Intern.*, amenor., dysmenor., & menor. w. caution (v. prone to cause abortion).—*Extern.*, rheum. & alopecia pityroides.—DOSE: 0.03–0.25 cc. (½–4 M); aver. dose, 0.06 cc. (1 M).—APPL., in 1:10 alcoh. sol. in alopecia.—ANTID.: Emetics, stomach siphon, oils, mucilage, opium, & brandy.—CAUT.: Poison!

OIL SCOTCH FIR—see Oil Pine Needles

OIL SENECA—see Petroleum, Crude

Oil Sesame—N.F. V; B.P.

Benne, Teel, Gingelly, or Gingilli, Oil.—Fixed oil fr. seeds of cultivated varieties of *Sesamum indicum*, L.—Pale-yellow, nondrying liq.—SOL.: C., E., petrol. E., CS₂, sltly A.—SP. GR.: 0.916–0.920, at 25° C., N.F.; 0.921–0.924 at 15.5° C., B.P.—Congeals at abt –5° C.—OPT. ROT.: +1° to +9°.—SAPON. No.: 188–193.—I-No.: 103–112.—ACID No.: Not over 8.—CONSTIT.: Olein; stearin; palmitin; myristin; linolein; sesamin.—ACTION: Lax., Nutrient.—USES: As of olive oil or almond oil.—*Techn.*, manuf. oleomargarine, soap, cosmetics, etc.—DOSE: 15–60 cc. (4–16 dr.) p.d.

OIL SILVER FIR } see Oil Fir
OIL SILVER PINE }

OIL SNAKEROOT, CANADA—see Oil Asarum

OIL SOJA BEAN—see Oil Soya Bean

Oil Soya Bean—B.P.C.

Oil Soja Bean; Chinese Bean Oil.—Pale, yellow fixed oil expressed fr. seeds of *Glycine Soja*, Sieb. & Zucc.—SOL.: A., E.—SP. GR.: 0.922–0.928 at 15.5° C.—SAPON. No.: 190–193.—I-No.: 137–143.—CONSTIT.: Palmitic (abt 15%), oleic (abt 50%), linolic (abt 19%), & linolenic (abt 5%), acids.—USES: As food (v. largely in China & Japan); *techn.*, manuf. soaps, paints, varnishes; as illuminant.

Oil Spearmint—U.S.P. X; B.P.

Oil Crispmint.—Volat. oil fr. fresh flowering plant *Mentha spicata* (viridis) L.—Colorl. to yellowish or greenish liq.—SOL.: 1 vol. 80% A., U.S.P.; 3 vol. 90% A., B.P.—SP. GR.: 0.917–0.934 at 25° C., U.S.P.; 0.925–0.940 at 15.5° C., B.P.—OPT. ROT.: –38° to –55°, U.S.P.; –30° to –50°, B.P.—CONSTIT.: Carvone (not less than 43%, U.S.P.; 42%–60%, B.P.C.); *l*-limonene; *l*-pinene.—ACTION & USES: As of oil peppermint.—DOSE: 0.06–0.2 cc. (1–3 M), aver. dose 0.1 cc. (1½ M).

Oil Sperm—B.P.C.

Fr. fat of *Physeter Macrocephalus*, L. (Sperm Whale).—Yellow liq.—SOL.: C. E., benzin; insol. A.—SP. GR.: 0.875–0.884 at 15.5° C.—SAPON. No.: 123–147.—I-No.: 79.5–84.—CONSTIT.: Esters of fatty acids.—USES: *Pharm.*, & *techn.* as lubricant, in lamps, harden'g steel, & manuf. soap.

Oil Spike

Volat. oil fr. lvs & tops *Lavandula Spica*, Cav.—Yellowish liq.; camph. odor.—SOL.: 2–3 A. (70%); oil turpentin.—SP. GR.: 0.905–0.915 at 15° C.—OPT. ROT.: Us'ly up to +3°.—CONSTIT.: Camphor; cineol; pinene (?); camphene; *l*-linalool; borneol; & perhaps also geraniol & terpineol.—ACTION: Carmin.; Stim.; Rubefacient.—USES: *Extern.*, rheum., neural., &c. Also *techn.*

OIL, SWEET—see Oil Olive

OIL SWEET BAY—see Oil Laurel, Volatile

OIL SWEET BIRCH—see Methyl Salicylate; Oil Betula

OIL SWEET FLAG—see Oil Calamus

Oil Tansy

Volat. oil fr. lvs & tops *Tanacetum vulgare*, L.—Yellow liq.; bec. brown by act'n of air & light.—SOL.: A., C., E.—SP. GR.: 0.925–0.950 at 15° C.—OPT. ROT.: +30° to +45°.—CONSTIT.: Thujone; borneol; camphor.—ACTION: Anthelm.; Antisep.; Emmen.—USES: *Intern.*, amenor., dysmenor., worms, & hyst.—*Extern.*, in liniments & oints.—DOSE: 0.06–0.2 cc. (1–3 M).—MAX. D.: 0.6 cc. (10 M).—CAUT.: Poison!

Oil Tar—B.P.C.

Volat. oil fr. wood tar.—Alm. colorl. liq. when fresh, but bec. reddish-brown.—SOL.: A., E.—SP. GR.: 0.860–0.900 at 15.5° C., B.P.C.—ACTION: Antisep.; Deod.; Parasiticide.—USES: *Intern.*, bronch. affect.—*Extern.*, skin dis.—DOSE: 0.06–0.3 cc. (1–5 M).

do. —Rectified—U.S.P. X

Light Oil Tar; Spirit of Tar.—Volat. oil fr. pine tar rectif. by steam redistil.—Thin, dark reddish-brown liq.—SOL.: A.—SP. GR.: 0.960–0.990 at 25° C.—USES: As of preced.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose 0.2 cc. (3 M).

OIL TAR, LIGHT—see Oil Tar, Rectified

OIL TEABERRY—see Methyl Salicylate

OIL TEEL—see Oil Sesame

Oil Theobroma—U.S.P. X; B.P.; Fr. Cod.

Cacao Butter.—Fixed oil expressed fr. roasted seeds *Theobroma Cacao*, L.—Yellowish-wh., brittle solid; choc. odor & taste.—SOL.: Freely in B., C., E., petrol. E.; sltly A., & sol. in boil. absol. A.; oils.—MELT.: 30°–35° C.; brittle below 25° C.—SP. GR.: Abt 0.973 at 25° C., U.S.P.—CONSTIT.: Glycerides of stearic (abt 40%), palmitic, & oleic acids, & also small quant. of o. fatty acids.—USES: *Pharm.* in supposit. & oints.—*Techn.*, in manuf. chocolates, toilet soaps & creams, etc.

Oil Thuja

Oil of Arbor Vitæ or of Wh. Cedar.—Volat. oil fr. lvs *Thuja occidentalis*, L.—Colorl. or yellowish or greenish-yellow liq.; camph. odor; bitter taste.—SOL.: 3–4 A. (70%).—SP. GR.: 0.915–0.935 at 15° C.—OPT. ROT.: –5° to –14°.—CONSTIT.: *d*-thujone; *l*-fenchone; *d*-pinene.—ACTION: Emmen.; Expectorant; Antirheum.; Anthelmintic.—USES: *Extern.*, skin dis. & perfume.

Oil Thyme—N.F. V; B.P.C.

Often misnamed "Oil of Origanum."—Volat. oil fr. flowering plant of *Thymus vulgaris*, L.—Colorl. or red liq.; arom. odor.—SOL.: 2 vol. 80% A., N.F.—SP. GR.: 0.894–0.930 at 25° C., N.F.; 0.905–0.935 at 15.5° C., B.P.C.—OPT. ROT.: Sltly levorot.—CONSTIT.: Thymol & carvacrol (not less than 20%, N.F.; 20%–45%, B.P.C.); cymene; *l*-pinene; borneol; linalool;

bornyl acetate.—ACTION: Antisept.; Carminative; Stim.; Rubefac.—USES: *Intern.*, collapse, bronch. affect., colic, catarrh.—*Extern.*, pruritus, skin dis.; fragr. antisept. f. the bath.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.1 cc. (1½ M).

Oil Turpentine Merck—U.S.P. X—Rectified

Turpentine Oil freed fr. unpleas. odor & taste by treatm. w. NaOH & distillation.—Colorl. liq.—SOL.: 5 A., U.S.P.; B., C., E., CS₂, 1 glacial acet. acid; benzin, & oils.—SP. GR.: 0.853–0.862 at 25° C., U.S.P.; 0.860–0.870 at 15.5° C., B.P.C.—BOIL.: Abt 155° C.—OPT. ROT.: –18° to –40°.—ACTION: Anthelm.; Antisept.; Diuret.; Diaphor.; Stim.; Rubefac.—USES: *Intern.*, chron. rheum., sciatica, in gonorr. & vesical catarrh (to check secretion); in dropsy (as diuret.); in typhoid (as stim.); also in dysentery, puerperal fever, colic, flatulence, singultus, gall stones, tenia (as anthelm.), lumbago, gleet, leucorr., whoop-cough, calculi, retention of urine, amenorr., etc., & as antidote in phosphorus poisoning.—*Extern.*, in linim. or oint. (1:3) in rheum., neuralg., frostbites, pityriasis, herpes tonsurans, etc.—DOSE: 0.3–2 cc. (5–30 M) ev. 4 hrs, best in emuls. or in gelat. caps.; aver. dose, 0.3 cc. (5 M).—For tape-worm, 4–8 cc. (1–2 fl. dr.).—NOTE: For internal use only the *rectified oil* should be used.—VETER. MED., *intern.*, as stomachic (small doses), anthelmintic, expectorant, & diuret. Doses, *cattle*, 25–250 cc. (6 dr.–8 oz.); *horses*, 10–100 cc. (2½–25 dr.); *sheep*, *goats*, & *pigs* 2–5 cc. (30–75 M); *dogs* 0.2–2 cc. (3–30 M). Should not be used in animals about to be slaughtered, or those being milked.—*Extern.*, as counterirritant in colic, rheumatism, pleurisy, pneumonia, etc.

do. —U.S.P. X

Spirits of Turpentine.—Colorl. liq.—SOL.: 5 A.; also in C., E., benzin, CS₂, oils.—SP. GR.: 0.854–0.868 at 25° C.—BOIL.: Greater part distils betw. 154°–170° C.—CONSTIT.: Alm. exclusiv. pinene.—USES: *Extern.*, in embrocations, liniments.—*Techn.*, in paints, varnishes, & as solvent f. oils, resins, &c.

Oil Turpentine Sulphurated

Haarlem Oil; Dutch Oil; Dutch Drops.—Mixt. sulphurated linseed oil w. oil of turpentine (1:3).—ACTION: Antisept.—USES: *Intern.*, lithiasis, cysts., &c.—*Extern.*, skin dis., atonic & indol. ulc.—DOSE: 0.3–1 cc. (15–15 M) in milk.—CAUT.: Do not confound w. "Dutch Liquid," which is Ethylene Chloride.

Oil Valerian

Volat. oil fr. rhizome & root *Valeriana officinalis*, L.—Yellowish-green to brownish liq.—SOL.: v. eas. A., C., E.—SP. GR.: 0.93–0.96 at 15° C.—OPT. ROT.: –8° to –13°.—SAPON. NO.: 100–150.—ACID NO.: 20–50.—CONSTIT.: *l*-Pinene; *l*-camphene; borneol; bornyl formate, acetate, isovalerate, & butyrate.—ACTION: Stiumlant.—USES: Hyst., chorea, restlessness, epilepsy, low fevers, headache, hypochondriasis, & var. nerv. disturbances.—DOSE: 0.06–0.3

cc. (1–5 M) sev'l t.p.d. in hysteria; up to 1.3 cc. (20 M) in epilepsy.

OIL, VEGETABLE, BROMINIZED—see Bromipin

OIL VERBENA, INDIAN—see Oil Lemon Grass

OIL VITRIOL—see Acid Sulphuric

OIL WHITE BIRCH—see Oil Birch Tar, Empyreumatic

OIL WHITE CEDAR—see Oil Thuja

Oil Wine Merck—Heavy

So-called "Heavy" Oil of Wine.—A prod. obt. by distill'n of A. or E., or both, w. H₂SO₄.—Yellowish, oily liq.; penetr. odor; sharp, bitter taste.—SOL.: A., E.; sltly in W.—SP. GR.: 1.095–1.130 at 15° C.—CONSTIT.: Ethyl sulphate, etherin, & etherol.—USES: Pharm.—*Techn.*, f. flavoring brandy.

do. Merck—Light

Heavy oil wine w. ether (abt 200 grn. of latter per fl. oz.).

OIL WINE, ARTIFICIAL—see Ethyl Oenanthat, Artificial

"OIL WINTERGREEN"—see Oil Betula

OIL WINTERGREEN, SYNTHETIC—see Methyl Salicylate; Oil Betula

OIL WORMSEED, AMERICAN—see Oil Chenopodium

Oil Wormseed—Levant

Volat. oil fr. frs *Artemisia maritima* var. *Stechmanni* (A. pauciflora, Weber).—Yellowish-green liq.—SOL.: A., E.—SP. GR.: 0.915–0.940 at 15° C.—CONSTIT.: Chiefly cineol (eucalyptol).—ACTION: Anthelm.; Tonic.—DOSE: 0.06–0.2 cc. (1–3 M).

Oil Wormwood

Volat. oil fr. lvs & tops *Artemisia Absinthium*, L.—Brownish-green liq.—CONSTIT.: Thujyl alcohol & acetate; thujone; phellandrene; pinene (?); cadinene, & a blue oil.—SOL.: 2 A. (80%); E.—SP. GR.: 0.925–0.955 at 15° C.—ACTION: Loc. Anesth.; Carmin.; Analg.; Tonic.—USES: *Intern.*, cerebral exhaustion, debility, & dyspep.—*Extern.*, in rheum. & neural.—DOSE: 0.06–0.2 cc. (1–3 M).

Oil Yarrow

Oil of Milfoil.—Volat. oil fr. lvs & tops of *Achillea Millefolium*, L.—Blue liq.—SOL.: A., E.—SP. GR.: 0.905–0.925 at 15° C.—CONSTIT.: Cineol.—ACTION: Tonic; Astring.; Emmen.—USES: Amenorr., colds, dysmenorr., &c.—DOSE: 0.06–0.3 cc. (1–5 M).

Oil Ylang Ylang

Cananga Oil.—Light-yellow, v. fragr., volat. oil distil. in the Philippine Islands, fr. frs *Cananga odorata*, Hook. fil. & Thomp.—SOL.: 0.5–2 A. (90%).—SP. GR.: 0.930–0.950 at 15° C.—OPT. ROT.: –38° to –45°.—CONSTIT.: Geraniol; *l*-linalool; paracresol methyl ether; cadinene; a sesquiterpene; a phenol; benzoic & acetic esters.—USES: Perfume.

Ointment Mercurial Merck—50% Mercury, U.S.P. X

50% metal. Hg.—ACTION: Alter.; Antisep.; Antisymph.—USES: Vener. sores, gland swellings, skin dis., pediculi, chilbl., ulc., small-pox pustules, inflamed eyes, syph. (inunction treatment).—APPL.: In *syph.*, 1.3–2.6 Gm. (20–40 grn.) by inunction 20 to 30 times, an inunction being made ev. o. day on another part of the body, begin. w. the leg, then on the thigh, forearm, upper arm, & abdomen. In eye affections, as 1:10 oint. comb'd w. narcotic extracts & opium.—DOSE: *Intern.*, as pills, 0.1–0.2 Gm. (1½–3 grn.) 2–3 t.p.d.

do. Merck — Diluted — Abt 30% Mercury, U.S.P. X

Blue Ointment.—30% metal. Hg.—ACTION & USES: As of 50% oint., but employed in proportionately less quant.

Ointment Mercury Nitrate Merck—N.F. V

Citrine Ointment.—Fr. 7 Gm. Hg, 17.5 Gm. HNO₃, & 76 Gm. lard.—ACTION: Extern. Stim. & alterative Dermic.—USES: Chron. ecz., psoria., pityriasis, & o. skin dis.; also in ulcerative & eruptive affect., & in inflammation of the eyelids.

do. —B.P.

10 Gm. Hg, 30 cc. HNO₃, 40 Gm. lard; 70 Gm. olive oil.—ACTION & USES: As of preced'g.

do. —Diluted—B.P.

1 oint. mercuric nitrate, B.P. + 4 yellow soft paraffin.

OLEATES—see under the name of the base, e.g., Aconitine, Ammonium, Barium, Bismuth, etc.

OLEIC ACID GLYCERIDE }
OLEIN } see Triolein

Oleocresote

Creosote-oleic Ester; Creosote Oleate.—Yellowish, oily liq.—SOL.: B., C., E.—Sp. Gr.: 0.950 at 15° C.—ACTION: Antisep.—USES: Catarrhal affect. of respir. org., chronic bronch., scrof., & tuberc.—DOSE: Adults, 2.6–10.6 Gm. (40–160 grn.) p.d.; childr., 0.5–3 Gm. (8–45 grn.) p.d., as emulsion.

Oleogomenol

Gomenol.—Solut. of niaouli oil (*q.v.*).—Mktd in various strengths (5%, 10%, 20%, 33%, & 50%).—ACTION: Antituber.—USES: Phth., bronch., rheum., neuralg., cystitis, whoop-cough.—DOSE: 0.25 cc. (4 M) in gel. caps. 4–10 t.p.d.—Hypoderm. in whoop-cough in childr., in 20% olive-oil solut., 3–15 cc. (45–240 M) accord. to age.—INJ., in cystitis, 2% solut.

Oleoguaiacol

Guaiacol Oleate; Guaiacol-oleic Ester.—Colorl. to yellowish liq.—Misc.: Fatty oils, B., C., E., &c.—SOL.: A.; insol. W.—ACTION: Antisep.; Antituberc.—DOSE: 0.3–0.6 cc. (5–10 M), 3 t.p.d.

Oleoresin Aspidium—U.S.P. X; B.P.

Extract or Oleoresin Male Fern; Liquid Extract Male Fern, B.P.—Ether. extr. of rhizome *Dryopteris Filix-mas*, Schott.—Thick, greenish-brown liq.; bitter, unpleas. taste.—ACTION: Effic. & safe Anthelm.—DOSE: 0.5–2 Gm. (8–30 grn.); aver. 4 Gm. (1 dr.) single, once a day. In *Tania solium* (the usual kind of tapeworm) 10–12 Gm. (2½–3 dr.); in *Tania mediocanellata* 12–16 Gm. (3–4 dr.); taken in 3 portions at intervals of ½ hr, in caps., followed if necess. in 1–2 hrs by calomel & jalap.—CAUT.: Shake well before dispensing.—NOTE: Merck's preparation is made fr. rhizomes of a pistachio-green color inside, & only the crop of ea. current year is used.—See also FILMARON TREATMENT.

Oleoresin Capsicum Merck—U.S.P. X

Fr. *Capsicum frutescens*, L. (Cayenne, or African, Pepper), by ether.—Cont. capsaicin, the active constit. of capsicum.—SOL.: A., E.—ACTION: Rubef.; Stim.—USES: *Intern.*, flatulence, & to arouse appetite.—*Extern.*, dil. w. soap linim. or olive oil in lumbago, neural., & rheumat. affect.—*Techn.*, imparting pungent taste to liqueurs, vinegar, mixed pickles, &c.—DOSE: 0.015–0.06 cc. (¼–1 M), highly diluted; aver. dose, 0.015 cc. (¼ M).

Oleoresin Cubeb—U.S.P. IX

Fr. fruit *Piper Cubeba*, L. fil., by exhaust. w. alcohol.—SOL.: A., E.—ACTION: Antiseptic; Expector.—USES: Gonorr., bronch., & dis. of muc. membr.—DOSE: 0.3–2 Gm. (5–30 grn.) sev'l t.p.d.; aver. dose 0.5 Gm. (8 grn.).

Oleoresin Ginger—U.S.P. IX

Fr. rhizome *Zingiber officinale*, Roscoe, by ether.—SOL.: A., E.—ACTION: Carmin.; Stim.—USES: Dysent., colic, dyspep., chills, colds, &c.—DOSE: 0.03–0.12 Gm. (½–2 grn.), highly diluted; aver. dose, 0.03 Gm. (½ grn.).

Oleoresin Lupulin—N.F. IV

Fr. glandular powd. fr. strobiles of *Humulus Lupulus*, L., by ether.—ACTION: Narc.; Tonic; Sed.; Antispasm.—USES: Insom., nervosus., delir. trem., dyspep.—DOSE: 0.12–0.3 Gm. (2–5 grn.); aver. dose, 0.2 Gm. (3 grn.).

OLEORESIN MALE FERN—see Oleoresin Aspidium

Oleoresin Matico

Ether. extr. fr. lvs *Piper angustifolium*, R. & P.—ACTION: Stim.; Tonic; Astring.; Hemost.—USES: Gonorr., gleet, cystitis, inflam. of kidneys & gen.-urin. org., catarrh, epistax. & hematuria.—DOSE: 0.2–1 Gm. (3–15 grn.).

Oleoresin Mezereon

Ether. extr. of bark *Daphne Mezereum*, L., & o. sp.—ACTION: Alter.; Stim.; Rubef.—USES: *Intern.*, syph., scrof. affect., &c.—*Extern.*, chiefly as a counter-irrit.—DOSE: 0.03–0.06 cc. (½–1 M).

Oleoresin Parsley Fruit—U.S.P. IX

Liquid Apiol.—Ether. extr. of dried fruit of *Petroselinum sativum*.—Green liq.—ACTION:

Emmenag.—DOSE: 0.3–0.6 cc. (5–10 M); aver. dose 0.5 cc. (8 M).

Oleo-resin Pepper—U.S.P. IX

Ether. extr. of fruit *Piper nigrum*, L.—ACTION: Carmin.; Stim.; Antipyr.—USES: Adjuvant to antipyrhetics & tonics; also f. flatulence, dyspep., & ague.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).

OLEUM RICINI—see Oil Castor

OLEUM RUSCI—see Oil Birch Tar, Empyreumatic

OLEUM VITIS VINIFERÆ—see Ethyl Oenanthate, Natural, Green

Olibanum—B.P.C.

Frankincense; Gum Thus.—Gum resin fr. *Boswellia Carterii* Birdwood, & o. spec. of *Boswellia*, Burseraceæ.—HÆBIT.: Nubia; Egypt; Somaliland.—CONSTIT.: Volat. oil (3%–8%); resin (60%–70%); bitter principle; gum (27%–35%).—ACTION: Stim.; Expector.—USES: Chiefly in plaster, or fumigations.—DOSE: 1–2 Gm. (15–30 grn.) in emuls.

Oligoclase—Mineral

Lime-soda Feldspar.—OCCUR.: U.S.; Arendahl; Sweden; Finland; Ural; Bohemia.—CONSTIT. of porphyry, granite, syenite, etc.—COMPOS.: $\text{Si}_2\text{SiO}_3\text{AlNa}$ w. $\text{Si}_2\text{AlO}_3\text{AlCa}$.—CRYST. SYST.: Asym.—LUSTER: Vitreous, pearly or waxy.—COLOR: Wh., reddish, grayish, greenish.—STREAK: Wh.—FRACT.: Conch. to uneven.—HARDN.: 6–6.5.—SP. GR.: 2.65–2.67.—Oligoclase is the mineral from which kaolin is formed by erosion.

OLIVE SPURGE—see Mezereum

Oliver's Bark—B.P.

Black Sassafras.—Bark of *Cinnamomum Oliveri* Bailey, Laurineæ.—HABIT.: New South Wales; Queensland.—CONSTIT.: Volat. oil (abt 1%); tannin.—USES: Inst. of cinnamon.

OLIVINE—see Chrysolite

OMAL—see Trichlorophenol

Ononin

$\text{C}_{25}\text{H}_{26}\text{O}_{11}$ = 502.33.—Glucoside from the root of *Ononis spinosa*, L. (Rest Harrow).—Wh., cryst. powd.—SOL.: A., W.—MELT.: Abt 210° C. w. prev. softening.

OPIAN, or OPIANINE—see Narcotine

OPIANYL—see Meconin

Opium Merck—U.S.P. X

Gum Opium; Crude, or Natural, Opium.—Air-dried milky exudation fr. unripe caps. *Papaver somniferum*, L. (or *P. album*, D.C.), Papaveraceæ; cont'g in normal moist condition not less than 9.5% anhydrous morphine.—HABIT.: Asia Minor; Persia; China; Africa; India; cultiv. in Greece.—CONSTIT.: Opium alkaloids (chiefly morphine & codeine); meconin; meconic acid; meconoisin; glucose; pectin; caoutchouc; wax.—ACTION: Nar.; Sed.; Anod.; Antispasm.; Hypn.; Diaphor.—USES: *Intern.*, & *Extern.*, see Opium, powd.—Also as source of morphine & o. opium alkaloids, & f. manuf.

powd., granulated, & deodorized (denarcotized) opiums.—DOSE, INCOMPAT., & ANTID.: As of Opium, powd.—CAUT.: Poison!

do. Merck—Denarcotized—U.S.P. IX

Deodorized Opium.—Powd. opium freed fr. narcotine by treat. w. purif. petrol. benzine; 10%–10.5% morphine.—USES: As of opium, but free fr. the disagr. effects of latter.—DOSE: 0.015–0.12 Gm. ($\frac{1}{4}$ –2 grn.); aver. dose, 0.06 Gm. (1 grn.).—Tr. (10% Op.) 0.3–1.3 cc. (5–20 M).—CAUT.: Poison!

do. Merck—Granulated—U.S.P. X

Opium dried at not above 70° C., coarsely powdered, & reduced w. granulated opium of weaker strength, or some inert diluent, to cont. 10%–10.5% anhydrous morphine.

do. Merck—Powd.—U.S.P. X

Opium dried at not above 70° C., finely powdered, & reduced w. a weaker powd. opium or some inert diluent to cont. 10%–10.5% anhydrous morphine, U.S.P.; 9.5%–10.5% when dried at 60° C., B.P.—ACTION: Stim.; Narc.; Antispasm.; Hypn.; Diaphor.; Anod.—USES: *Intern.*, insom.; neural., colic, spasm, dyspep., rheum., diabetes, pleurisy, peritonitis, pneumonia, bronch., enteritis, typhilitis, cancer, tetanus, delirium tremens; cholera, diarrh., dysent., restlessness, consumption, &c.; to ease pain, give rest & sleep, check morbid secretions, relieve cough, & allay irritability.—*Extern.*, in 1:10–20 oint.; & in supposit. & vaginal ovules.—DOSE: Powd., 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); aver. dose, 0.06 Gm. (1 grn.); *Max. D.*, 0.2 Gm. (3 grn.) single, 0.5 Gm. (8 grn.) p.d.—*Extr.*, 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); *Max. D.*, 0.12 Gm. (2 grn.) single; 0.3 Gm. (5 grn.) p.d.—Dover's Powd. (10% Op.), 0.3–1.3 Gm. (5–20 grn.); aver. dose, 0.5 Gm. (8 grn.).—Tr. (1:10) 0.3–1.3 cc. (5–20 M); aver. dose, 0.5 cc. (8 M).—Camph. Tr. (0.4% Op.) 4–15 cc. (1–4 fl. dr.); aver. dose, 4 cc. (1 fl. dr.).—Deod. Tr. (10%) 0.3–1.3 cc. (5–20 M).—Vinegar (1:10) 0.3–1.3 cc. (5–20 M).—INCOMP. (of liq. opiates): Alkalies; alkaloidal pptnts; alkaline carbonates; Cu & Fe salts; kino; lime-water; HgCl_2 ; nutgall; AgNO_3 .—ANTID.: Warm strong coffee; atropine or strychnine hypoderm.; emetics, stomach siphon, warm drinks, artif. respir.; KMnO_4 ; tannin; brandy, oxygen, friction, electricity; constant motion.

OPIUM, DENARCOTIZED—see Opium, Deodorized

OPOBALSAM—see Tolu

Optochin Base—Insoluble in Water

Ethylhydrocupreine Merck; Numoquin.— $\text{C}_{21}\text{H}_{28}\text{N}_2\text{O}_2$ = 340.35.—Wh., bitter powd.—SOL.: A., C., E., oils & fats; alm. insol. W.—ACTION: Specific f. pneumococcic affections; powerful pneumococcicide even in high dilut'n, & fully active even in 1:400000 solut. cont'g serum.—ACTION: Antipyr.—USES: *Intern.*, specific f. pneumonia (also post-operative); also as prophylactic in severe or prolonged exposure to cold.—*Extern.*, prevent'g pneumococcus in-

fection following operations f. cataract; serpent ulcer.—Dose: In pneumonia, 0.25 Gm. (4 grn.) w. 150 cc. (5 fl. oz.) milk & no other food, 5 times daily, day & night, f. 3 days only. Treatment should be begun preferably on the 1st, but no later than the 3rd, day following development of symptoms; if disease is of pneumococcic origin results are satisfactory, but if not of pneumococcic origin, or if treatment is begun later than the 3rd day, no results are to be expected.—NOTE: It is important to remember that f. *internal* use Optochin *Base* only should be employed. Given as above outlined, no serious visual or auditory disturbances are likely, but should mild disturbances supervene, as occasionally may happen, suspend the use of the remedy for a day, & then resume w. smaller doses.—In pneumococcus sepsis in children, 0.1 Gm. (1½ grn.) sev'l t.p.d. & until a total of 1 Gm. (15 grn.) taken.—*Extern.*, applied in 1%–2% oint. or oily solut. in corneal serpent ulcer.

do. Merck—Tablets, 2 Grains Each,
Sugar Coated

Optochin Hydrochloride—Soluble in Water

Ethylhydrocupreine (Numoquin) Hydrochloride Merck.— $C_{21}H_{28}N_2O_2.HCl = 376.81$.—Wh., bitter, cryst. powd.—SOL.: Eas. W., A.; soluts sterilizable without decomp'n.—ACTION: Pneumococcicide.—USES: As spinal inj. in pneumococcic meningitis.—*Extern.*, in corneal serpent ulcer, & as prophylactic in occupational dis. of eye (due to injuries or splinters of stone or wood, particles of steel, sand, etc.).—DOSE: In pneumococcic meningitis, intraspinal inj. of 1 cc. (15 M) of 1:1000 solut. of Optochin Hydrochloride in sterile salt solut. f. abt ea. 2 kilos (abt. 4 lb.) of body wt. Make 2 inj. daily f. 4 or 5 days, & at least 1 inj. a day so long as living pneumococci are present in spinal fluid.—APPLIC.: In corneal serpent ulcer, a 1%–2% solut. (or oint.) w. or without 2% atropine sulphate, applied on a pledget of cotton 2–3 t.p.d. To maintain effect, instill a few drops of 1% solut. ev. hr during the day, & apply a 1%–2% oint. at night. The first application is painful, but subsequent ones are not, due to local anesthetic effect.—NOTE: It should be remembered that Optochin Hydrochloride should *not* be given internally; for internal use Optochin *Base* only should be employed.

ORANGE I—see Tropaeoline O O O No. 1

ORANGE II—see Tropaeoline O O O No. 2

ORANGE III—see Methyl Orange

ORANGE IV—see Tropaeoline O O

ORANGE EXTRA—see Tropaeoline O O O No. 2

Orange GG

Sodium Anilineazobetanaphtholdisulphonate.—Yellowish-red powd.—SOL.: W. w. orange-yellow color.—USES: Dyeing wool & silk.

Orange G (M)

Anilineazobetanaphtholdisulphonic Acid G.— $C_6H_5.N:N.C_{10}H_4(OH)(SO_3Na)_2[2:6:\delta] = 452.30$.

—Yellowish-red to brick-red powd.—SOL.: Eas. W. w. orange-yellow to orange-red color; diffic. in A. w. orange-yellow color; insol. C., E., petrol. E.—USES: Dyeing wool & silk; bacterial stain (in Ehrlich's Triacid Mixture).—NOTE: Under the designation Orange G there is marketed another dye, the sodium salt of betanaphtholsulphanilic acid.

ORANGE GS, OR N—see Tropaeoline O O

Orange Peel, Bitter—U.S.P. X; B.P.

Dried rind of unripe fruit of Citrus Aurantium, L. (var. Bigaradia, Hook. f., B.P.), Rutaceae.—HABIT.: N. India; cultiv. near Mediterranean Sea, Spain, W. Indies, Florida, California, &c.—CONSTIT.: Volat. oil; hesperidin; narangin; aurantiamarin; isohesperidin; acid resin; aurantiamaric acid; gum; tannin.—ACTION: Stim.; Tonic; Carmin.; Stomachic.—USES: Chiefly as a flavor, & corrig.—DOSE: 1–2 Gm. (15–30 grn.); aver. dose, 1 Gm. (15 grn.).—FL'dextr., 1–4 cc. (15–60 M).—Alcoh. extr., 0.12–0.6 Gm. (2–10 grn.).—Infus. (1:20, B.P.), 15–30 cc. (4–8 fl. dr.).—Comp. Infus. (2.5 dried orange peel, 1 fresh lemon peel, 0.5 cloves, 100 boil. W., B.P.), 15–30 cc. (4–8 fl. dr.).—Tr. (1:5) 2–6 cc. (30–90 M).

do. Sweet—U.S.P. X

Fresh rind of ripe fruit of Citrus Aurantium var. sinensis, L. Rutaceae.—HABIT.: See Orange Peel, Bitter.—Closely resembles bitter orange peel, but has an orange-yellow color; sweetish, fragrant odor; arom., sltly bitter taste.—CONSTIT.: Volat. oil; hesperidin; fixed oil; resin; gum; tannin.—USES: Arom.; solely as flavor.

ORANGE R—see Orange T

ORANGE ROOT—see Hydrastis

Orange T

Mandarin G R; Orange R; Kermesin Orange; Sod. Sulpho-orthotolueneazobetanaphtholate.— $C_{17}H_{13}N_2O_4SNa = 364.27$.—Brick-red powd.—SOL.: W.—USES: *Techn.*, to dye wool orange fr. an acid bath.

ORCANETTE—see Alkanet

Orcein

$C_{28}H_{24}N_2O_7 = 500.35$.—Coloring matter fr. orcin.—Brownish-red microcryst. powd.—SOL.: In A. w. red, & in alkaline W. w. bluish-violet, color; also in acetone & in acetic acid; insol. B., C., E., CS_2 .—USES: Alcoh. solut. in microscopy as a mordant in staining flagella, & f. detect. elastic tissue in sputum.

Orchil

Archil.—Coloring matter fr. var. spec. of lichens, Rocella tinctoria, Acharius, Parmeliaceae, &c., by fermentation.—HABIT.: Mediterranean region; Canary Islands; Azores, &c.—CONSTIT.: Orcin; orcein.—USES: Dye f. wool & silk, both in weakly acid & weakly alkaline baths; partic. useful f. production of mixed colors; not adapted f. cotton.

Orcin

s-Dioxytoluene; Methylpheniol [3:5]; *s*-Methylresorcinol; Orcinol.— $C_6H_3(CH_3).(OH).(OH)$. [1:3:5] + $H_2O = 142.12$.—Wh. cryst.; sweet but unpleas. taste; reddens in air.—SOL.: Eas. W., A., E.; less eas. B.; diffic. C., CS_2 .—MELT.: Abt $60^\circ C$., w. 1 mol. W.; 106° – $108^\circ C$. when anhydr.—ACTION: Antiseptic.—USES: Skin dis.—*Techn.*, as test f. pentoses (Allentollens; Bial; Blumenthal; Grünwald; Salkowski; Tollens; lignin (Czapek), beet sugar (Ihl), aloinose (Léger), saccharoses & arabinose (Neumann), & diastase (Wiesner).

ORCINOL—see Orcin

ORDEAL BARK—see Sassy Bark

ORDEAL BEAN—see Physostigma

OREGON GRAPE ROOT—see Berberis

Orexine

Phenyldihydroquinazoline Tannate.— $C_6H_5N.C_6H_4.N:CH.(C_{14}H_{10}O_9) = 530.33$.—Yellowish-wh., odorl., pract. tastel. powd.—SOL.: Dil. HCl; sltly in A.; insol. W.—ACTION: Appetizer; Antiemetic; Stomachic.—USES: Anorexia, w. no gastric dis.; to restore appetite in phth., chlorosis, cardiac dis., surg. operat., &c.; also f. vomit. of pregn. & that following narcosis. Contraindic. in excessive gastric acidity & in gastric ulcer.—DOSE: 0.5–0.8 Gm. (8–12 grn.) 2 t.p.d., 1–2 hrs bef. meals, w. half a glass W.—INCOMP.: Iron preps.

Oridine

Calcium salt of the iodized fatty acids of cottonseed oil; 23%–25% I.—ACTION & USES: As of inorganic iodides.—DOSE: 1 Gm. (15 grn.) is approx. equivalent to 0.3 Gm. (5 grn.) potass. iodide; as a prophylactic f. goiter, 0.01–0.03 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.) per day until 40 doses are taken.

ORIENTAL BERRY—see Cocculus

ORIENTAL SWEET GUM—see Storax

Origanum

Common Marjoram; Wild Marjoram.—Herb of *Origanum vulgare*, L., Labiata.—HABIT.: Europe; natur. in U. S.—CONSTIT.: Volat. oil; tannin.—ACTION: Antiscorbut.; Stim.; Tonic; Emmen.—USES: *Extern.*, in fomentations.

do. —Cretan

Spanish Hop.—Herb of *Origanum creticum*, L., Labiata.—HABIT.: Mediterranean region.—CONSTIT.: Volat. oil; bitter principle; tannin.—USES: In toothache.

ORIZABA JALAP ROOT—see Ipomea

Orizaba Jalap Root—B.P.

Mexican Scammony Root.—Dried root of *Ipomoea orizabensis*, Ledenois, Convolvulaceae.—HABIT.: Mexican Andes.—CONSTIT.: Resemble those of jalap & scammony; resin (us'ly 11%–19%).—ACTION & USES: Like those of jalap & scammony; rarely used intern., but chiefly as source of scammony resin.

ORIZABIN—see Resin Jalap, White

Ormosine Hydrochloride

$C_{20}H_{33}N_3 + 3$ to $4H_2O$.—Hydrochloride of alkaloid fr. fruit *Ormosia dasycarpa*, Jacks.—Wh. needles.—SOL.: W., A.—MELT.: $87^\circ C$.—Not used medic.

ORPHOL = Bismuth Betanaphthol

ORPIMENT—see Arsenic Sulphide, Yellow

ORPIMENT, RED—see Arsenic Sulphide Red

Orris—N.F. V; B.P.C.

White Flag.—Rhizome of *Iris florentina*, L., I. pallida, Lam. or *I. germanica*, L., Iridaceae.—HABIT.: Northern Italy (near Florence); Germany; France.—CONSTIT.: Iridin; irone (ionone); resin; starch; volat. oil (butter of orris, 0.1%–0.2%); tannin.—ACTION: Stim.; Diuret.; Masticatory f. teething infants.—USES: *Techn.*, in perfume & cosmetics.

Orsudan

Sodium Methylacetylaminophenylarsenate.—Wh., cryst. powd.; 25.4% As.—SOL.: 2.5 hot, 4 cold, W.—USES: Malaria.—DOSE: 0.05 Gm. ($\frac{3}{4}$ grn.), subcut.

Orth's Lithium-Carmine

1 Gm. Li_2CO_3 , 2–3 Gm. carmine, & 100 cc. W.—USES: Staining nuclei.

do. Picrolithium-Carmine

Orth's lithium-carmine (*q.v.*) w. picric acid added.—USES: As of lithium-carmine, & stains like latter; may be used w. fresh material, or that hardened by any process.

Orthite—Mineral

Allanite.—OCCUR.: Widely distributed.—COMPOS.: $(SiO_4)_3(Al, Ce, Fe)_2(AlOH)CaFe_2$.—CRYST. SYST.: Monosym.—LUSTER: Submetallic to pitch-like.—COLOR: Brown to black.—STREAK: N'ly wh.; also gray & tinted.—CLEAV.: None.—FRACT.: Uneven.—HARDN.: 5.5–6.—SP. GR.: 3.0–4.2.—USES: Source of ceria.

ORTHOAMINOAZOTOLUENE—see Aminoazotoluene

ORTHOAMINOPHENOL HYDROCHLORIDE—see *o*-Aminophenol Hydrochloride

ORTHOAMINOTOLUENE (or, -OL)—see *o*-Toluidine

ORTHOANISIDINE—see *o*-Anisidine

ORTHOCHLORNITROBENZENE (or, -ZOL)—see *o*-Chlornitrobenzene

ORTHOCHLORTOLUENE (or, -OL)—see *o*-Chlorotoluene

Orthoclase—Mineral

Potassium Feldspar.—OCCUR.: Widely distributed.— $Si_3O_8Al(KNa)$.—LUSTER: Vit. to dull or stony.—COLOR: Flesh red to gray, yellow, wh. or colorl.; rarely green.—STREAK: Wh.—CLEAVAGE: Perfect basal & sltly less perfect clinopinacoidal at 90° ; brittle.—FRACT.: Conch. to uneven.—HARDN.: 6.—SP. GR.: 2.57.—USES: Manuf. porcelain, glass ware, enamel ware, & as manure.

ORTHOCRESALOL—see *o*-Cresalol

ORTHOCRESOL—see *o*-Cresol

ORTHOCRESOL, or ORTHOCRESYLIC, ACETATE—see Acetyl-*o*-cresol

ORTHOCRESYLIC ESTER OF SALICYLIC ACID—see *o*-Cresalol

ORTHODIAMINOBENZENE—see *o*-Phenylenediamine

ORTHODIAMINODITOLYL—see Tolidine

ORTHODIHYDROXYANTHRAQUINONE—see Alizarin

ORTHODIMETHYLBENZENE—see *o*-Xylene

ORTHODIOXYBENZENE—see Pyrocatechin

ORTHODIPHENYLENE-ETHYLENE—see Phenanthrene

ORTHODIPHENYLENEMETHANE—see Fluorene

ORTHOETHOXYANAMONOBENZOYLAMINOQUINOLINE—see Analgin

ORTHOETHYLPHENOL—see Phlorol

Orthoform

Methyl Metaminoparaoxybenzoate.— $C_6H_3 \cdot NH_2 \cdot OH \cdot CO \cdot O \cdot (CH_3)[3:4:1] = 167.12$.—Wh., odorl., tastel., cryst. powd.—SOL.: 6 A., 50 E.; alm. insol. cold W.; decomp. by boil. W., or by heat. w. alkalis.—MELT.: 141° – 143° C.—ACTION: Anod.; Antisep., & Local Anesthetic.—USES: *Intern.*, relieve pain in gastric ulcer & carcinoma, & syphil. headache.—Chiefly *extern.*, on painful wounds, burns, toothache, &c., pure, or in 10%–20% mixt. w. starch, talcum, &c.; mixd w. milk sugar by insufflation; in oint. w. wool fat; also as appl. in epithelial carcinoma (1 part to 45–70 parts A. & W.).—DOSE: 0.5–1 Gm. (8–15 grn.).—INCOMP.: Alkalies & alkali carbonates.

Orthoform Hydrochloride

$C_6H_3 \cdot NH_2 \cdot OH \cdot CO \cdot O \cdot (CH_3)[1:3:4] \cdot HCl = 203.59$.—Wh., cryst. powd.—SOL.: 10 W.—USES & DOSES: As preced.

ORTHOHYDROXYBENZYLALCOHOL—see Saligenin

ORTHOMETHYLAMINOPHENOL—see *o*-Anisidine

ORTHOMETHYLPHENOL—see *o*-Cresol

ORTHOMONOBROMTOLUENE (or, -OL)—see *o*-Bromtoluene

ORTHONITROPHENOL METHYL ESTER—see *o*-Nitranisol

ORTHO-OXYBENZALDEHYDE—see Aldehyde Salicylic

ORTHO-OXYTOLUENE—see *o*-Cresol

ORTHOPHENYLENEDIAMINE—see *o*-Phenylenediamine

ORTHOTOLIDIN—see Tolidine

ORTHOTOLUIC NITRILE—see *o*-Toluic Nitrile

ORTHOTOLUIDINE—see *o*-Toluidine

ORTHOTOLUYLENEDIAMINE HYDROCHLORIDE—see *o*-Toluylenediamine Hydrochloride

ORTHOTOLYLACETAMIDE—see Acet-*o*-Toluide

ORTIZON=PERHYDROL-UREA

Ortol

Methylorthoaminophenol.—Accord. to Vogel, a combin. of 2 mol. methylorthoaminophenol & 1 mol. hydroquinone.—USES: Photogr. develop.

ORUNGURABIE—see Duboisia

OSCINE—see Scopoline

OSIER, GREEN—see Cornus Circinata

OSMIC ANHYDRIDE—see Acid Osmic

Osmium

Os = 190.90; disc. in 1803 by Tennant. An invariable constit. of Pt ores.—Bluish-wh., lustr. metal like Pt. Heated in air, eas. burns to the exceed. poisonous OsO_4 .—Sp. Gr.: 22.48; heaviest of all known substcs.—MELT.: 2700° C.—USES: Manuf. electric incandescent light bulbs.

Osmium Chloride—Osmous

Osmium Dichloride.— $OsCl_2 = 261.82$.—Dark-green, deliq. need.—SOL.: Eas. W., A., E.—CAUT.: Keep fr. air.

OSMIUM DICHLORIDE—see Osmium Chloride

OSMIUM TETROXIDE—see Acid Osmic

Osmium & Ammonium Chloride

Ammonium-Osmic Chloride.— $OsCl_6(NH_4)_2 = 439.74$.—Red powd., or dark-red octahedral cryst.; 43.5% osmium.—SOL.: W., A.

Osmium & Potassium Chloride

Potassium-Osmic Chloride.— $K_2OsCl_6 = 481.86$.—Dark-red, alm. black octahedral cryst.; 39.6% osmium.—SOL.: Eas. W., A.

Osmium & Sodium Chloride

Sodium-Osmic Chloride.— $Na_2OsCl_6 = 449.60$.—Orange, rhomb. prisms; 40.3% osmium.—SOL.: Eas. W., A.—Solut. osmium salts are v. unstable.—USES: As a catalyst in organic oxidation processes.

Osmium-Iridium Alloy

Iridium-Osmium Alloy.—Lustr., steel gray, diffic. mal. alloy of hardness of quartz.—Insol. acids or alkalis.—Sp. Gr.: 19.3–21.1.—USES: *Techn.*, pointing gold pens.

OTTO OF ROSE—see Oil Rose

Ouabain Merck

Crystallized, or G-, Strophanthin; Gratus Strophanthin.— $C_{30}H_{46}O_{12} \cdot 9H_2O = 760.66$.—Identical w. the glucoside fr. Strophanthus gratus.—Colorl. cryst.—SOL.: 100 W., 30 absol. A., 30 amyl A.; sltly C., E., & acetic E.—MELT.: 187° – 188° C., after being dried at 105° C.—ACTION: Cardiac Tonic; Diur.—USES: As of digitalis in weak heart, chronic muscular degeneration, muscular atrophy, aortal insufficiency, disturb. of compensation, dyspnea, edema, etc.—DOSE: *Intramusc. or intraven.*, adults, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) not oftener than once in 24 hrs. (N.N.R.).—MAX. D.: Adults, 0.006 Gm. ($\frac{1}{10}$ grn.) per day, per os.

Ovaraden

Standardized Dried Extract Ovary.—1 part = 2 parts fresh gland.—Grayish powd.—ACTION: Nervine; Alter.—USES: Disorders accomp. menopause or following ovariectomy; also chlorosis.—DOSE: 1–2 Gm. (15–30 grn.) 3 t.p.d.

do. —Tablets, 0.25 Gm. Each

Ovariin Merck

Desiccated ovarian substce.—1 part = abt 7 parts of fresh cow's ovary.—Coarse, brownish powd.—ACTION: Nervine; Alter.—USES: Disorders accomp. menopause or following extirpation of the ovaries or uterus; amenor., chlorosis, vomit. of pregnancy, neurasth., angina pectoris, metrorrhagia, dysmenorrh., epilepsy, Basedow's dis., osteomalacia, & affect. due to atrophy & lesions of the genitals.—DOSE: 0.2–0.36 Gm. (3–6 grn.); up to 3 Gm. (45 grn.) p. day.

Ovarin Merck—Tablets; Each = 0.5 Gm. fresh Substce

DOSE: 2–5 tabl. 3 t.p.d.

OVARIIN, SOLUBLE—see Novarial

Ovogal

Albumin Cholate.—Greenish-yellow powd.—SOL.: Alkalies w. decomp. into albumin & bile acids; insol W., A., dil. acids, E., B., fats.—ACTION: Cholagogue; Intest. Antisep.; Mild Cathart.; Antilithic.—USES: In intest. catarrh, fatty dejections, constip., & hepatic & biliary dis. Passes through the stomach unchanged, but is absorbed by the intestines.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.

OVO-LECITHIN—see Lecithin

OVOVITELLIN—see Vitellin

OWENITE—see Thuringite

OxALACETIC ESTER	} see Ethyl Oxalacetate
OxALACETICDIETHYL ESTER	

Oxaly Chloride

CICO.COCl = 126.93.—Colorl., fuming liq.; penetrat'g odor.—Violently decomp'd by W.—BOIL.: 64°–67° C.—USES: Chem. synthesis.

OxALYLUREA—see Acid Parabanic

Oxamethane

Ethyl Oxamate.—CO(NH₂).CO(OC₂H₅) = 117.08.—Fr. ethyl oxalate & alcoh. NH₃.—Wh. cryst.—SOL.: A.—MELT.: 115° C.

OxAMIC-ACID HYDRAZIDE—see Semioxamazine

Oxamide

Ethane-diamide.—CO(NH₂).CO(NH₂) = 88.06.—Fr. ammon. oxalate by heat, or fr. ethyl oxalate & NH₃.—Wh. powd.—Insol. W., A., E.

OxAMMONIUM SULPHATE—see Hydroxylamine Sulphate

Oxanilide

Diphenyloxamide.—CO(NHC₆H₅).CO(NHC₆H₅) = 240.18.—Fr. aniline oxalate by heat.—Lustr., ivory-like scales.—SOL.: Sltly in hot A.; insol. W.—MELT.: 245° C.

OXANILINE HYDROCHLORIDE—see o-Aminophenol Hydrochloride

OXANTIN—see Dioxycetone

Oxaphor

50% alcoholic solution of oxycamphor, (CO.C₈H₁₄.CHOH).—Misc.: A., B.—ACTION: Antidyspneic; Sedat.—USES: Chiefly cardiac dyspnea & asthma; also in renal affect., emphysema, bronch., & nervous dyspnea.—DOSE: 0.3–1.3 cc. (5–20 M) 3 t.p.d.; 3–4 cc. (45–60 M) p.d.—MAX. D.: 8 cc. (120 M) p.d.

OXGALL, DRIED—see Sodium Choleate

Oxgall Merck—U.S.P. VIII

Thickened bile of Bos Taurus, L. (the Ox).—Yellowish-green, thick extract; unpleas. odor; disagr., bitter taste; contains chiefly sodium glyco- & tauro- cholestes, & also cholesterin, lecithin, choline, etc.—ACTION: Lax.; Digestive; Cholag.—USES: Typhoid fever, jaundice, impaired digestion, lithiasis, acholia, cholemia, & o. condit. due to biliary insufficiency; also enterocolitis, &c.—Techn. as test f. glucosides (Brunner) & f. typhoid (Kayser-Conradi).—DOSE: 0.3–1.3 Gm. (5–20 grn.) sev'l t.p.d.

do. Merck—Purified, Dry—See Sodium Choleinate

OXO-ATE = AMMONIUM IODOXYBENZOATE; AMIO-DOXYL BENZOATE

Oxone

Fused sodium peroxide.—Hard lumps, which evolve oxygen on contact w. W.; yields abt 2.2 cubic feet = abt 60 liters gas per lb., = 322 times the vol. of the substce.—USES: Generating oxygen f. medicinal, scientific, or technical, purposes.

OX-TONGUE—see Anchusa

Oxyacanthine

Vinetine.—C₁₉H₂₀NO₂.OH = 311.27.—Alkaloid found w. berberine in root of Berberis vulgaris, L.—Wh. to yellowish cryst. powd.—SOL.: A., B., C., E.—MELT.: Abt 216° C.—ACTION: Bitter Ton.; Febrifuge.

Oxyacanthine Sulphate

(C₁₉H₂₁NO₃)₂.H₂SO₄ + 4H₂O = 792.68.—Wh., cryst. powd.—SOL.: Hot W.—Paralyzes brain & spinal cord (of frogs).—Subcut. lethal dose f. rabbits, 0.1–0.2 Gm. (1½–3 grn.).

o-OXYBENZALDEHYDE—see Aldehyde Salicylic

β-OXYBUTYRALDEHYDE—see Acetaldol

Oxycamphor

CHOH.C₈H₁₄.CO = 168.18.—Wh., cryst. powd.—SOL.: 50 cold. W.; more eas. hot W.; v.

eas. A., C., E.—MELT.: 203°–205° C.—ACTION: Sedat.—Marketed as 50% alcohol. solut. (Oxaphor, *q.v.*).

OXYCHLORDIPHENYLQUINOXALINE—see Luteol

OXYCONIINE—see Conhydrine

OXYCYMOL—see Carvacrol

OXYDMERCUROUS AMMONIUM NITRATE—see Mercury Oxide, Black, Hahnemann

OXYDIMETHYLQUINIZINE—see Antipyrine

OXYDINITROBENZENE—see α -, β -, or γ -, Dinitrophenol

OXYETHYLACETANILID—see Acetphenetidol.

OXYETHYLTRIMETHYLAMMONIUM HYDROXIDE—see Choline

Oxygen—U.S.P. X

Gaseous oxygen, O = 16.00, usually under pressure in metal cylinders.—Colorl., odorl., neutral gas; non-inflamm., but supports combustion.—SOL.: Abt 34 W., & 3.6 A., at 25° C.—USES: *Medic.*, by inhal. in poison. by CO, illumin. gas, chlorof., ether, chlorine, morphine, strychnine, & in drowning; dyspnea due to stenosis, bronch., pulmon. emphysema, & phthisis, & following cardiac or renal degeneration, partic. atheroma of coronary arteries; asthma (bronchial, pneumothoracic, pleuritic, pneumonic, phthisical); anemia, chlorosis, severe hemorrhage, Basedow's dis.; in pediatrics in bronchial asthma, bronchopneum., & postdiphtheritic cardiac weakness; by inj. directly into furuncles & anthrax; fetid bronch. In conjunction w. nitrous oxide gas f. general anesthesia.—*Techn.*, oxyhydrogen or oxyacetylene flame f. welding & lighting (calcium light, etc.), submarine work by divers, etc.—DOSE: 30–150 liters per day, inhaled fr. a tube or suitable mask; the gas is sometimes allowed to bubble through W. in a wash-bottle.

OXYGENATED VASELIN—see Vasogen

OXYHEMATIN—see Hematin

Oxyhydrastinine

C₁₁H₁₁NO₃ = 205.15.—Fr. hydrastinine & KOH by boil.—Wh., cryst. powd.—SOL.: Eas. A., B., C., E., CS₂.—MELT.: 98° C.

OXYIodomETHYLANILID—see Iatrol

Oxyl-Iodide

Phenylcinchoninic Acid Hydriodide.—C₁₆H₁₁O₉NH₂I = 377.10.—Golden-yellow powd.; 33% I.—SOL.: Alkaline liquids (intestinal fluid); insol. gastric fluid.—ACTION: Alternative; Antipyr.; Analges.—USES: As of phenylcinchoninic acid.

OXYMERCAPTOL—see Sulphonmethane

OXYMERCURIC SULPHATE—see Mercury Subsulphate, Mercuric, Basic

p-OXYMETAMETHOXYALLYLBENZENE—see Eugenol

p-OXYMETHYLACETANILID—see Methacetin

OXYMETHYLCONIFERIN—see Syringin

OXYMETHYLENE—see Formaldehyde

OXYMETHYLENE ACETATE—see Methylene Diacetate

OXYNEURINE HYDROCHLORIDE—see Betaine Hydrochloride

OXYPHENYLALANINE—see *L*-Tyrosine

β -OXYPHENYL- α -AMINOPROPIONIC ACID—see Tyrosine

OXYPHENYLBENZYLKETONE—see Benzoin

d- α -OXYPROPYLHEXAHYDROPYRIDINE—see Conhydrine

OXYPURINE—see Sarcine

OXYQUINASEPTOL—see Diaphtherine

Oxyquinoline Sulphate Merck

(C₉H₇NO)₂H₂SO₄ = 388.29.—Yellow, cryst. powd.; slt saffron odor & burn'g taste.—SOL.: Eas. W.; diffc. A.; insol. E.—MELT.: 175°–178° C.—ACTION: Analgesic; Nontoxic, Powerful Antiseptic (more so than corros. sublimate). Does not coagulate albumin or injure mucous membranes or tissues.—USES: Chiefly *extern.*, but also *intern.*—APPL.: Ordinarily as antisept. in 1:1000 solut.; as nasal spray or douche, 1:3000 solut.; as gargle, 1:2000 solut.; eye wash, 1:4000 solut.; vaginal douche, 1:1000 incr. if necess. to 1:100, solut.—DOSE: 0.3 Gm. (5 grn.) 3 t.p.d.

p-OXYQUINONE—see Phorone

OXYSANTONIN—see Artemisin

Oxysparteine

C₁₅H₂₄N₂O = 248.28.—Fr. sparteine by oxid'n.—Wh. cryst.; yellowish on keep.—SOL.: W., A., C., E.—MELT.: 84° C.—ACTION: Cardiac Stim.—USES: Heart failure. Tolerance is soon established f. incr. doses.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.), hypoderm.

Oxysparteine Hydrochloride

C₁₅H₂₄N₂O.HCl + 4H₂O = 356.82.—Wh. cryst.—SOL.: W., A.—MELT.: 48°–50° C.—ACTION: Cardiac Tonic.—USES: Hypoderm. in heart failure; also w. morphine before operation-narcosis.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) single or per day, subcut.—Bef. operations, 0.03–0.04 Gm. ($\frac{1}{2}$ – $\frac{2}{3}$ grn.) w. 0.01 Gm. ($\frac{1}{8}$ grn.) morph. hydrochl. 1 hr bef. the operation.—CAUTION: Narcotic!

Oxysparteine Sulphate

(C₁₅H₂₄N₂O)₂.H₂SO₄ = 594.64.—Wh. cryst.—SOL.: W., A.

o-OXYTOLUENE—see *o*-Cresol

p-OXYTOLUENE—see *p*-Cresol

OXYTOLUYLTROPEINE—see Homatropine

Oyster Shell, Prepared

Concha Praeparata; Testa Praeparata.—The boiled, cleaned, & powdered shell of the oyster, *Ostrea edulis*, Mollusca, Lamellibranchiata,

Ostreidæ.—HABIT.: Coasts of Atlantic & Indian Oceans.—CONSTIT.: Chiefly CaCO_3 ; also H_3PO_4 , 0.09%; I, 0.003%; Br, 0.005%; animal matter, 0.5%–4%; & small quant. H_2SO_4 , MgO , Al_2O_3 , Fe_2O_3 & SiO_2 .—USES: *Medic.*, antacid.—*Techn.*, toothpowd.; polish-

ing; chicken feed, &c.—DOSE: 0.3–2 Gm. (5–30 grn.).

OZOKERITE—see Ceresin

"OZONIZED ETHER"—see Hydrogen Peroxide, Ethereal Solution

P

Pacini's Solution—Nos. 1 & 2

No. 1: 2 Gm. HgCl_2 , 4 Gm. NaCl , 26 Gm. G., & 226 cc. W.—No. 2: 1 Gm. HgCl_2 , 2 cc. acetic acid, 115 cc. W., & 43 Gm. G.—USES: Preserv. nerves, retina, &c.

PAINT WHITE—see Bismuth Subnitrate

Palatin Black B (also 4 B; 5 BN; 6 BE)

These belong to the so-called "acid dyes," & are members of the class known as "azo" dyes.—SOL.: Eas. in hot W.—USES: Dyeing wool & silk w. add. of Na_2SO_4 , prep's of tartar, & acids (best H_2SO_4).

PALE CATECHU—see Gambir

PALE ROSE—see Rose, Pale

Palladium Merck—Sheet, or Wire

Pd = 106.70; discov. in 1804 by Wollaston.—Mall., ductile, hard, silver-wh. metal.—Sp. Gr.: 11.4–11.8 at 15° C.—MELT.: 1549° C.—SOL.: HNO_3 .—USES: *Techn.* in form of gold & silver alloys in dentistry, & as gold-, silver-, or copper-alloy f. journal bearings, f. springs, & in balance wheels in watches; also f. palladium-coating silvered vessels, making lancets, & palladium mirrors f. astronomical instruments.

do. Merck—Black

Palladium Mohr.—USES: Analyt. & techn.; as catalyst in hydrogenation, & in the ignition of H & hydrocarbons w. O.

do. —Spongy

Spongy masses; metal. luster on rubbing.—SOL.: In HNO_3 w. access of air.—USES: Analyt. & techn.; in gas anal. f. separ. H fr. mixtures of gases; also igniting mixtures of H or hydrocarbons w. O.

Palladium Asbestos—10% & 50% Pd

Pd pptd upon asbestos.—USES: Anal. & techn. f. absorb. H in gas anal.

Palladium Chloride Merck—Palladous—Dry

Palladium Dichloride.— PdCl_2 = 177.62.—Dark-brown powd.—SOL.: W. acidul. w. HCl .—USES: *Medic.*, in phth. & bronch.; contraindic. in nervous dis. & putrid bronch.—*Techn.*, disinf. surgical sutures; in photogr. f. prepar. pictures to be transferred to porcelain; toning solutions; galvano-coating parts of clocks & watches; manuf. indelible ink.—DOSE: 0.3–0.6 cc. (5–10 M) of a 3% aqu. solut. bef. meals.

do. —10% Solution

Palladium Iodide—Palladous

PdI_2 = 360.54.—Black powd.—SOL.: Solut. KI; insol. W.

PALLADIUM MOHR—see Palladium, Black

Palladium Nitrate Merck—Palladous

$\text{Pd}(\text{NO}_3)_2$ = 230.72.—Brown, deliq. salt.—SOL.: W. w. turbid; w. much W., brown, basic salt ppts.—USES: Quant. separ'n of Cl & I.

Palladium Paper

Wh. paper, impregnated w. PdCl_2 .—USES: Test f. CO, H_2S , illumin. gas, O_3 , methane, ethane, &c.; a black color develops due to formation of metal. Pd.

Palladium & Potassium Chloride—Palladous

$\text{PdCl}_2 + 2\text{KCl}$ = 326.74.—Reddish-brown cryst.—SOL.: W.

Palladium & Sodium Chloride Merck—Palladous

$\text{PdCl}_2 + 2\text{NaCl} + 3\text{H}_2\text{O}$ = 348.59.—Brown, deliq. salt.—SOL.: W., A.—USES: Detect'g illum. gas, CO, ethylene, etc., & I.

PALM BUTTER—see Oil Palm

PALMITIC ACID CETYL-ESTER—see Cetin

PALMITIC ACID GLYCERIN

ESTER, NORMAL

} see Tripalmitin

PALMITIN

PANAMA BARK—see Quillaja

Panase

Digestive enzymes fr. pancreatic gland of the pig.—Light, yellowish-wh. powd.—SOL.: Alm. compl. in W. & in G.—ACTION: Diastatic; Proteolytic; Lipolytic.—USES: Where pancreatic preps indicated.—DOSE: 0.12 Gm. (2 grn.) & upwards.—INCOMP.: Strong acids, alkalies.

PANAX—see Ginseng

Pancreatin Merck—U.S.P. X

Mixt. of enzymes fr. the pancreas of warm-blooded animals, usually fr. fresh pancreas of the hog, or ox, & consist. chiefly of amyllopsin, trypsin & steapsin.—Yellowish, amorph. powd.; converts not less than 25 times its weight casein into proteoses.—SOL.: Partly in W.; insol. A.—0.28 Gm. suffice to peptonize 400 cc. milk within 30 min.; & 0.3 Gm. convert 7.5 Gm. starch into sugar within 5 min.—ACTION: Diastatic; Amyolytic; Proteolytic; Emulsifiant.—USES: *Intern.*, diabetes, jaundice, scrofula, rachitis, anemia, chlorosis, etc.; aid to

duodenal digestion; partic. well adapted f. making Comp. Pancreatin Powd. N.F. V f. making Humanized Milk f. infants.—*Extern.*, cancer; also as solvent f. diphtheritic & croupous membranes.—*Dose*: 0.3–1 Gm. (5–15 grn.); aver. dose, 0.5 Gm. (8 grn.).—*NOTE*: Pancreatin is decomp. in stomach, hence should be given in keratinized pills.—*INCOMP.*: A., acids.

do. —Diluted, Scales

Perm. & perf. sol. prep.—Yellowish, transp. scales. 6 parts = 1 part absolute pancreatin.—*SOL.*: W.

Panitrin

Papaverine Nitrite.— $C_{20}H_{21}NO_4 \cdot HNO_2$ = 386.29.—Light-yellow, cryst. powd.—*SOL.*: Eas. C., acetone; v. diff. W., A.—*ACTION*: Vasodilator.—*USES*: Partic. f. subjective tinnitus aurium & in difficulty of hearing.—*Dose*: 0.05 Gm. ($\frac{3}{4}$ grn.) by subperiosteal inj.—*APPL.*: *Extern.* in oint. (0.2 Gm.: 10 yellow petrolatum) to induce hyperemia.

Pankreon

Tannin-pancreatin comp'd; cont. active tryptic, diastatic & steatolytic ferments of pancreas, & abt 8% tannin.—Dry, grayish, odorl. powd.; slt peptone odor & taste.—*SOL.*: Alkal. liq.; insol. W. & acid liq.—*ACTION*: Proteolytic; Amyolytic, & Emulsifiant.—*USES*: Diar., dysent., constip., hyperemesis, achylia, nerv. dyspep., gastritis, marasmus, gastr. carcinoma, intest. stricture, tabes, &c. Rapidly develops its action in the alkal. intest. fluids.—*Doses*: Adults, 0.3–0.5 Gm. (5–8 grn.) 3 t.p.d.; childr., 0.1 Gm. ($\frac{1}{2}$ grn.) sev'l t.p.d.

PANSECRETIN—see Secretin

Pantopon

Papaveretum, B.P.C.—A mixt. of the hydrochlorides of the opium alkaloids in the proportion in which they exist in Smyrna opium; cont's 50% anhydr. morph. hydrochloride.—1 Pantopon = 5 opium U.S.P., = 0.6 morphine sulphate, U.S.P. + 0.4 all o. opium alkaloids.—Yellowish-gray, cryst. powd.—*SOL.*: Eas. W.—*USES*: As of morphine.—*Dose*: 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) per os or subcut.

Papain Merck

Papayotin; Vegetable Pepsin.—Prep'd fr. the juice of fruit & lvs of *Carica Papaya*, L. (Papaw). An enzyme similar to pepsin, but acting in acid, alkali, or neutral, solut.—Wh. or grayish-wh., sltly hygrosc. powd.—Dissolves abt 200 times its wt coagulated egg albumin in alkali. liq. in abt 5 hrs.—*SOL.*: W., G.; insol. A., C., E.—*ACTION*: Digestive.—*USES*: *Intern.*, aid. digestion in chron. dyspep., gastric fermentation, & gastritis (B.P.C.).—*Extern.*, dissolv. false membr. in diphtheria & croup; cancer.—*Dose*: 0.12–0.3 Gm. (2–5 grn.), best w. sod. bicarb.—*APPL.*: 5% solut. of equal parts G. & W. f. diphth. & croup; 16% solut. in fissured tongue; in cancer, 0.3–1.2 cc. (5–18 M), accord. to size, of a 25% aqu. solut. by inj.

PAPAVRETUM—see Pantopon

Papaverine Merck

$C_{20}H_{21}NO_4$ = 339.28.—Alkaloid fr. opium.—Wh. cryst. powd.—*SOL.*: Eas. hot A., C.; sltly W., E.—*MELT.*: 147° C.—*ACTION*: Narc.; Sed.; Vaso-depressor.—*USES*: Us'y as more sol. hydrochloride & sulphate in threatened abortion, abdominal angina, angina pectoris, arteriosclerosis, bronch. or cardiac asthma, cerebr. congest., cholelithiasis, dysmenor. endometr., vomiting of pregnancy, seasickness, whoop-cough, chlorof. narcosis, diabetes, gastric crises, psychic disturb., hemopt., infantile diar., menstrual colic, gastric ulcer, nephritis, spastic constip., post-apoplectic incr. in pressure, pressor vascular crises, pylorospasm, renal atrophy, tabetic vascular crises, & acute uremia; also f. diagnostic purposes in intestinal disturbances.—*Dose*: Adults, 0.05–0.08 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) single, & per day up to 0.24 Gm. (4 grn.); *subcut.*, 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) single, & per day 0.1 Gm. ($\frac{1}{2}$ grn.), or even more; *intraven.*, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.), up to 0.04 Gm. ($\frac{2}{3}$ grn.).—Childr., 0.005–0.05 Gm. ($\frac{1}{12}$ – $\frac{3}{4}$ grn.) 3 t.p.d.; *subcut.*, 0.001–0.01 Gm. ($\frac{1}{60}$ – $\frac{1}{6}$ grn.). For internal use the tablets of 0.03 Gm. ($\frac{1}{2}$ grn.) ea. of the hydrochloride are best, while f. subcut. & intravenous use, the 3% sterilized solut. of the sulphate, & specially prepared f. such use, is preferable.

Papaverine Hydrochloride Merck

$C_{20}H_{21}NO_4 \cdot HCl$ = 375.74.—Wh., cryst. powd.—*SOL.*: W., A.—*ACTION*: Narc.; Sed.; Vascular Depressor; Loc. Anesth.—*USES*: *Intern.*, as of Papaverine, Alkaloid, above.—*Extern.*, as local anesth.—*Dose*: Childr. (15 days–5 yrs old) 0.005–0.05 Gm. ($\frac{1}{12}$ – $\frac{3}{4}$ grn.) 3–4 t.p.d.; in adults to reduce blood pressure, 0.08 Gm. ($\frac{1}{3}$ grn.) *max.* single to 0.25 Gm. (4 grn.) *max.* daily; in gastric ulcer 0.05 Gm. ($\frac{3}{4}$ grn.) w. 0.0005 Gm. ($\frac{1}{20}$ grn.) atropine sulphate p.d., later incr. to double this dose.—*Intraven.*, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.).

PAPAVERINE NITRITE—see Panitrin

Papaverine Sulphate

$(C_{20}H_{21}NO_4)_2 \cdot H_2SO_4$ = 776.63.—Yellowish-wh. cryst. powd.—*SOL.*: W., A.—*ACTION* & *USES*: As of Papaverine Alkaloid & Hydrochloride.

Papaw

Carica; Pawpaw; Papaya; Melon Tree.—Lvs of *Carica Papaya*, L., Passifloræ, Papayacæ.—*HABIT.*: Tropical America & Asia.—*CONSTIT.*: Papain (vegetable ferment); carpaine; carposide (a glucoside).—*USES*: Digestant (like pepsin).—*Techn.*, manuf. carpaine & papaine.

PAPAYA—see Papaw

PAPAYOTIN—see Papain

PAPPOOSE ROOT—see Caulophyllum

PARACETALDEHYDE—see Paraldehyde

PARACETANISIDIN—see Methacetin

PARACETPHENETIDIN—see Acetphenetidin

PARACHLORALOSE—see β -Chloralose

PARACHLORINITROBENZENE (or, -ZOL)—see *p*-Chloronitrobenzene

PARACHLORTOLUENE (or, -OL)—see *p*-Chlortoluene

Paracodin

Dihydrocodeine.— $C_{18}H_{23}NO_3 = 301.28$.—Cryst. powd.—SOL.: Eas. W., A.—MELT.: 65° C.—USES: Cough, morphinomania.—DOSE: 0.02–0.05 Gm. ($\frac{1}{8}$ – $\frac{3}{4}$ grn.).

Paracodin Tartrate

$C_{17}H_{19}NO(OH)(OCH_3).C_4H_6O_6 + H_2O = 469.37$.—Colorl. cryst.—SOL.: 4.5 W.; diffic. A.; insol. E.—MELT.: 187° – 189° C. w. decomp.—ACTION: Sedative.—USES: Cough, catarrh, & affect. of respiratory organs.—DOSE: 0.01–0.03–0.05 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ – $\frac{3}{4}$ grn.) 3 t.p.d.

Paracoto—N.F. IV; B.P.C.

Coto (B.P.C.).—Dried bark of an unidentified tree indigenous to Northern Bolivia; (probably belonging to the Laurineæ, B.P.C.).—HABIT.: Bolivia; Brazil.—Resembles coto bark in general appearance very much, but has a much weaker odor, & only a faintly pungent, acrid taste.—CONSTIT.: Paracotoin; hydrocotoin; protocotoin; methylhydrocotoin; leucotin; oxy-leucotin (methylprotocotoin); piperonylic acid; volatile oil; tannin.—ACTION: Astring.; Analg.; Antisep.—USES: Chron. diar., cholera, dysentery, gastric catarrh, neuralg., rheum., toothache, & gout.—DOSES: 0.06–0.5 Gm. (1–8 grn.); aver. dose, 0.3 Gm. (5 grn.).—Tr. (1:10), 0.6–2 cc. (10–30 M).—Fl'dextr., 0.3–0.6 cc. (5–10 M).

Paracotoin

$C_{12}H_8O_4 = 216.12$.—Fr. Paracoto bark.—Pale-yellow, lustr. cryst.—SOL.: E., boil. A., C., acetone; diffic. B.; sl'tly boil. W.—MELT.: 149° – 151° C.—USES, &c.: As of true cotoin; only half as strong as latter.

PARACRESALOL—see *p*-Cresalol

PARACRESOL—see *p*-Cresol

PARACRESYLOL—see Acid Cresylic

PARACUMINIC ALDEHYDE—see Cuminal

PARACYMOL—see Cymene

PARADIAMINODIPHENYL—see Benzidine

PARADIBROMBENZENE (or, -ZOL)—see Benzene Dibromide

PARADICHLORBENZENE, (or, -ZOL)—see Dichloride; Benzene Dichloride

PARADIHYDROXYBENZENE (or, -ZOL)—see Hydroquinone

PARADIMETHYLAMINO BENZALDEHYDE—see *p*-Dimethylaminobenzaldehyde

PARADIMETHYLBENZENE—see *p*-Xylene

PARADISE PLANT—see Mezereum

PARADISE SEED—see Amomum Melegueta

PARADISE TREE—see Simaruba

PARAETHOXYPHENYLUREA—see Sucrol

Paraffin—U.S.P. X; B.P.C.

Paraffin Wax.—Mixture of solid hydrocarbons having the general formula C_nH_{2n+2} , & obt'd fr. petroleum.—Wh., odorl. mass.—SOL.: B., C., E., CS₂, oils, turpentine.—SP. GR.: Abt 0.900 at 25° C., U.S.P.; 0.82–0.94 at 15.5° C., B.P.C.—MELT.: 50° – 57° C., U.S.P.—Misc.: w. aid of heat w. wax, spermaceti, oils, &c.—USES: Pharm. as oint. base not prone to rancidity.—Surgic., rectifying deformities of nose & face by subcut. & submucous inj., in hernia, by inject. in inguinal & umbilical forms to form a hard plug; in rectal prolapse; & in atrophic rhinitis, by inj. into lower turbinate; also in burns, & f. prepar. bandages by impregnating the rolls w. melted paraffin.—Techn., manuf. paraffin-paper (so-called wax-paper) & candles, as size; fixing drawings &c. on muslin, prepar. so-called starch polish; water-proofing wood, cork, paper, leather, & o. tissues; manuf. varnishes; in brewing & distilling for impregnating wooden vessels; in lubricants; preserving meat & eggs; as a succedaneum f. wax; extract'g perfumes fr. flowers; as stopper f. acid bottles.

Paraffin Chlorinated—U.S.P. X

Chlorcosane.—Obt. by chlorinating solid paraffin; abt 50% Cl.—Light-yellow to amber, thick oily liq.; odorl., & stable in air.—SOL.: B., CCl₄, C., E.; sl'tly A., insol. W.—SP. GR.: 1.00–1.07 at 25° C.—USES: As solvent f. dichloramine-T (up to 8%).

PARAFFIN JELLY—see Petrolatum

PARAFFIN OIL—see Petrolatum, Liquid

Paraffin Oil, Chlorinated

Liquid petrolatum chlorinated at ord. temp. by KClO₃ & conc. HCl.—USES: As diluent f. soluts dichloramine-T in chlorinated eucalyptol; soluts are unstable & should not be used if over 4 days old, or if distinct ppt. appears.

PARAFFIN WAX—see Paraffin

PARAFORM—see Paraformaldehyde

Paraformaldehyde Merck—U.S.P. X

Trioxymethylene; Paraform; Triformol; Polymerized Formic Aldehyde.— $(CH_2O)_3 = 90.06$.—Wh., cryst. powd.; gives off formaldehyde vapors even at ord. temperat., the evolnt. being incr. by heat.—SOL.: Slowly in cold, more readily in hot, W. w. evol'n of formaldehyde; insol. A., E.; sol. fixed alkali soluts.—ACTION: Intest. Antisep.; Germicide; Mild Caustic.—USES: Intern., cholera nostras, intest. catarrh, typhoid, & cholera.—Extern., chiefly to generate formaldehyde gas by heat'g; inhaled w. air in phth., coryza, & tracheobronchitis; cauterizing benign, partic. pedunculated, cutaneous tumors, warts, etc., & in cutaneous saprophytes.—Techn., fixing bacteria cultures in situ; also f. antisep. bandages & surg. dressings.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.; aver. dose, 0.5 Gm. (8 grn.). In cholera nostras in childr., 0.05–1.2 Gm. ($\frac{3}{4}$ –18 grn.).—APPL.: In 10%

suspension in collodion (f. warts) 3 t.p.d.—Vapors used also f. disinf. sick-rooms, clothing, linen & sick-room utensils. For the last-named purpose, the utensils are enclosed in a wooden or tin box in which a small quantity of paraformaldehyde is warmed. The paraformaldehyde may also be mixed w. CaCl_2 & spread on cloths, formaldehyde being evolved.—**ANTID.**: Solut. ammon. acetate, stomach siphon, warm baths.

PARAGUAY TEA—see Maté

PARAHYDROXYPHENYLETHYLAMINE HYDROCHLORIDE—see Tyramine

PARAIBA—see Simaruba

PARAIODANILINE—see *p*-Iodaniline

PARAISOPROPYLBENZOIC ALDEHYDE—see Cuminal

PARAISOPROPYLMETACRESOL—see Thymol

Paraldehyde Merck—U.S.P. X

Paracetaldehyde.— $(\text{CH}_3\text{CHO})_3 = 132.13$.—Polymer of acetaldehyde.—Fr. aldehyde by HCl , or ZnCl_2 .—Colorless liq.; characteristic arom. odor & warm taste.—**SOL.**: A. C., E., oils, 8 W. at 25°C ., & 17 boil. W., U.S.P.—**Sp. Gr.**: Abt 0.990 at 25°C ., U.S.P.—**BOIL.**: 120° – 125°C ., U.S.P.—**SOLIDIF.**: Not below 9°C ., U.S.P.—**ACTION**: Hypn.; Antispasm.; Sedat.—**USES**: Insomn.; asthma, dyspnea, agitation, hysteria, mental disorders, chron. bronch., phthisis, chorea, alcoholism, delirium tremens, insanity, mental exhaustion; as antid. f. strychnine, & as hypnotic in morphinism; to obviate dangers of chlorof. narcosis. Where small bulk is required, give in equal vol. expressed oil almonds.—*Techn.*, as test f. alkaloids (Brunner-Strzyzowski) & fuchsine (Carobio).—**DOSE**: As *sedat.* 1–2 cc. (15–30 M); as *hypn.*, 2–10 cc. (30–150 M), the last in divided dose well dil. w. elixir, sweet W., etc.; aver. dose, 2 cc. (30 M). Bef. chlorof. narcosis, 2–3 cc. (30–45 M) $\frac{1}{2}$ –1 hr bef. giving the chlorof.—**MAX. D.**: 5 cc. (75 M) single, & 10 cc. (150 M) p.d.—**INCOMPAT.**: Alkalies, HCN , iodides, oxidizers.

PARALLYLPHENYLMETHYLIC ESTER—see Anethol

PARAMETHOXYBENZALDEHYDE—see Aldehyde Anisic

PARAMETHOXYPROPYLBENZENE—see Anethol

PARAMETHYLISOPROPYLBENZENE—see Cymene

PARAMETHYLPHENOL—see *p*-Cresol

Paramide

Triimide; Mellitimide; Mellimide; Benzenehexacarbonicacid-triimide.— $\text{C}_6(\text{CO}_2\text{NH})_3 = 285.11$.—Wh. mass.—**SOL.**: H_2SO_4 ; insol. W., A.

PARAMINOACETANILID—see *p*-Aminoacetanilid

PARAMINOACETOPHENONE—see *p*-Aminoacetophenone

PARAMINOACETYL BENZENE—see *p*-Aminoacetophenone

PARAMINOAZOBENZENE—see *p*-Aminoazobenzene

PARAMINOBENZOIC ACID ETHYLESTER—see Ethyl Aminobenzoate

PARAMINOBENZOYLDIETHYLAMINO-ETHANOL HYDROCHLORIDE—see Procaine Hydrochloride

PARAMINOBENZOYL- α -DIMETHYLAMINO- β -METHYL- γ -BUTANOL HYDROCHLORIDE—see Tutocaine

PARAMINOBENZOYL-GAMMADINORMALBUTYLAMINOPROPANOL SULPHATE—see Butyn

PARAMINODIMETHYLANILINE—see Dimethyl-*p*-Phenylenediamine

PARAMINODIPHENYLIMIDE—see *p*-Aminoazobenzene

PARAMINOMETHYLPHENYLKETONE—see *p*-Aminoacetophenone

PARAMINOPHENOL & SALTS—see under *p*-Aminophenol

PARAMINOTOLUENE (or, -OL)—see *p*-Toluidine

PARAMONOBROMOTOLUENE (or, -OL)—see *p*-Bromotoluene

Paramorphan

Dihydromorphine Hydrochloride.— $\text{C}_{17}\text{H}_{21}\text{NO}_2\text{HCl} = 307.73$.—Wh., cryst. powd.—**SOL.**: W., sltly A.—**ACTION**: As of morphine, but said to be not so toxic.—**USES**: As of morphine.—**DOSE**: 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.).

PARAMORPHINE—see Thebaine

PARANAPHTHALENE—see Anthracene

PARANEPHRIN—see Epinephrine

Paranephrin—Sterilized Solution, 1:1000

Colorl. solut. of the hydrochloride of the active base fr. suprarenal caps., obt'd without aid of acids or alkalies; fully represents the unchanged blood-pressure-raising principle of the caps., while free fr. even traces of albumoses & peptones.—**MISC.**: W.—Supplied as a 1:1000 aq. sterilized solut. cont'g 0.6% NaCl .—**ACTION**: Hemost.—**USES**: *Intern.*, suppressing intest. hemor. occur. in the course of typhoid, also in gastric hemor., scarlatinous forms of hemorrhagic nephritis; post partum hemor., Addison's dis., seasickness, whoop.-cough.—*Extern.*, alone or w. cocaine hydrochlor. in general surgery, gynecol., urology, rhinol., laryngol., ophthalmol., & dentistry.—**DOSE**: 0.3–1.5 cc. (5–25 M) at intervals of 4 hrs; childr., 0.12–0.25 cc. (2–4 M).—**Mktd** in bts of 10 cc. ea.—See also Epinephrin.

PARANITROPHENYL-METHYLISONITROPYRAZOLON—see Acid Picrolonic

PARANITROSOPHENOL—see *p*-Nitrosophenol

Paranoval

A veronal rendered tasteless by add'n of trisodium phosphate in molecular proport.—**SOL.**: Eas. W.—**ACTION**: As of veronal-sodium.—**DOSE**: 0.5 Gm. ($7\frac{1}{2}$ grn.), equivalent to 0.25 Gm. (4 grn.) veronal-sodium.

PARAOXYMETAMETHOXYALLYLBENZENE—see Eugenol

PARAOXYMETHYLACETANILID—see Methacetin

β -PARAOXYPHENYL- α -AMINOPROPIONIC ACID—see *l*-Tyrosine

PARAOXYQUINONE—see Phorone

PARAOXYTOLUENE—see *p*-Cresol

PARAPEPTONE—see Syntonin

PARAPHENETOLCARBAMIDE—see Sucrol

PARAPHENYLENEDIAMINE—see *p*-Phenylenediamine

PARAPHTHALEIN—see Phenolphthalein

PARAPROPENYLALCOHOL METHYL ESTER—see Anethol

PARAROSANILINE HYDROCHLORIDE—see Fuchsine

Para-thor-mone

Parathyroid Extract.—Stable aq. solut. cont. the active principles of parathyroid gland of cattle. Standardized so that 1 unit is defined as $\frac{1}{100}$ of the amt. of solut. required to cause an increase of 0.005 Gm. of calcium in the blood serum of a 20 kilo dog, the increase being determined 15 hrs after the inj. of the solut.—USES: Tetanus.—DOSE: 20–30 units. In severe cases dose is repeated 2–3 times within first 24 hrs then diminished accord. to condit.

Parathyrin

A fluid prep'n cont'g active hormones of parathyroid bodies.—USES: Intramusc. or intraven. in tetanus, paral. agitans, chorea, & o. conditions associated w. a functionally deficient calcium metabolism, *e.g.*, tubercul., osteomalacia, varicose & indolent ulcers.—DOSE: 1 cc. (15 M) 2 t.p. week; in extreme cases 1 cc. (15 M) ev. day or ev. other day for sev'l doses.

Parathyroid Gland—Desiccated

Desiccated exterior parathyroids of ox, freed fr. fat, cleaned, dried & powdered, without add'n of preservative, or diluent.—Light yellow powd.; peculiar odor; 1 part powd. = approx. 10 parts fresh gland.—SOL.: Partly in W.—USES: In tetany following injury to or removal of parathyroid gland, & in gastric or infantile tetany; paralysis agitans, eclampsia, chorea (espec. in adults).—DOSE: 0.006 Gm. ($\frac{1}{10}$ grn.).

PARATOLUENESULPHONEDICHLORAMIDE—see Dichloramine

PARATOLUIC NITRILE—see *p*-Toluic Nitrile

PARATOLUIDINE—see *p*-Toluidine

PARATOLYLACETAMIDE—see Acet-*p*-toluide

Paratophan

Methylatophan; Methylphenylquinolinecarboxylic Acid.— $\text{CH}_3\text{C}_9\text{H}_8\text{N}_2\text{C}_6\text{H}_5\text{COOH}$ [6:2:4] = 263.20.—Yellow, sltly bitter, cryst. powd.—SOL.: A., C., E., alkalies; insol. W.—MELT.: 228° C.—USES: To incr. uric-acid secretion.—DOSE: 2–3 Gm. (30–45 grn.).

PARAXYLENE—see *p*-Xylene

PARAZOANILINE—see *p*-Diaminoazobenzene

Pareira—N.F. V; B.P.C.

Pareira Brava.—Dried root of *Chondodendron tomentosum*, Ruiz et Pavon, Menispermaceae.—HABIT.: Brazil, Peru.—CONSTIT.: Bebeerine (pelosine, abt 10%, B.P.C.); chondrodine; free fatty acids (abt 9%); tannin.—ACTION: Diur., Emmen., Febrif., Aper.—USES: Gonorr., gleet, pyelitis, chron. cystitis, dropsy, leucorr., rheumat., &c.—DOSES: 2–4 Gm. (30–60 grn.); aver. dose, 2 Gm. (30 grn.).—Fl'extr., 2–8 cc. (30–120 M).

PARIS GREEN—see Copper Acetoarsenite; Methyl Green

PARIS VIOLET—see Gentian Violet BBB

PARIS WHITE—see Calcium Carbonate

PARIS YELLOW—see Lead Chromate

PARK LILY—see *Convallaria* Flowers

Paroidin

An aq. solut. cont'g the active prin. of parathyroid gland of cattle, & having the property of reliev'g symptoms of parathyroid tetany & increas'g calcium content of blood serum.—USES: Tetanus.—DOSE: Average, 0.2–0.4 cc. (3–6 M) ev. 12 hrs f. 5–6 days, & never more than f. 10 days in succession. After suspending use f. 1–2 weeks, resume as before if necess.—NOTE: Solut. is to be given subcut. or intramusc., but *not* intraven.

PARODYNE—see Antipyrine

PAROLEINE—see Petrolatum, Liquid

Parotid Gland—Dried, Powd.

Fr. parotid gland of sheep.—1 part = 10 parts fresh gland.—USES: Ovarial dis., dysmen. & pelvic exudates.—DOSE: 0.12 Gm. (2 grn.) 3–6 t.p.d.

PAROXYL = Acid Acetylaminohydroxyphenylarsonic

Parresine

Mixt. of 94%–96% paraffin (m.p. 48°–49° C.), 0.2%–0.25% elemi, 0.4%–0.5% Japan wax, & 0.2%–0.25% asphalt. w. 2% eucalyptol & alkannin & gentian violet to color, N.N.R.—Grayish, smoky color.—MELT.: 48°–49° C.—USES: Burns, frostbite, chilblains, & covering denuded surfaces; used also to prepare paraffin-covered bandages & to seal gauze dressings.

PARROT GREEN—see Copper Acetoarsenite

PARSLEY CAMPHOR—see Apiol

PARSLEY ELDER—see Sambucus

Parsley Fruit—U.S.P. IX

Dried ripe fruit (seed) (also dried root, N.F. IV) of *Petroselinum sativum*, Hoffman, Umbelliferae.—HABIT.: Europe (Russia; France; Germany); cultiv. everywhere.—CONSTIT.: *Herb*, volat. oil; apiin; apiolin.—*Root*, volat. oil.—*Seed*, volat. & fixed oils; apiol; apiolin; apiin; tannin.—ACTION: *Root*, Diuret.—*Seed*, Diuret.; Febrif.; Emmen.; Insecticide.—USES: *Herb*, chiefly in cooking; also extern. as vulnerary.—All three used in

dropsy, amenor., cystitis, & derangements of genito-urin. tract.—Seed also used as source of apiol.—DOSES: *Root*: 2–4 Gm. (30–60 grn.).—*Fl'dextr.*, 2–4 cc. (30–60 M).—*Seed*, 1–2 Gm. (15–30 grn.).—*Fl'dextr.*, 2–4 cc. (30–60 M).

PARTRIDGE BERRY—see *Mitchella*

β -Parvoline

Beta-parvoline. — $C_6H_{13}N = 135.16$.—Homologue of pyridine; fr. cinchonine by distil. w. KOH.—BOIL.: 220° C.

PASQUE FLOWER—see *Pulsatilla*

Passiflora—N.F. V

Passion Flower, or Vine; May Pops.—Dried flowering & fruiting tops of *Passiflora incarnata*, L., *Passifloraceae*.—HABIT.: Southeastern U.S. —CONSTIT.: Alkaloid (in very small quantity).—ACTION: Narc.; Anod.—USES: Employed by eclectics in neural., sleeplessness, dysmenor., & diar.; also used in epilep., tetanus, erysip., syph., &c.—DOSE: 0.2–0.6 Gm. (3–10 grn.); aver. dose, 0.2 Gm. (3 grn.).—*Fl'dextr.*, 0.12–0.3 cc. (2–5 M).

PASSION FLOWER, OR VINE—see *Passiflora*

PATENT ALUM—see *Aluminum Sulphate*

Paucine Hydrochloride

$C_{27}H_{39}N_5O_5 \cdot 2HCl + 6H_2O = 694.52$.—Fr. paucine, an alkaloid fr. seeds of *Pentaclethra macrophylla*, Benth. (Owalá Grains), found in the Congo States.—Wh. needles.—SOL.: Sltly W.—MELT.: 245°–247° C.—Physiologically inactive.

Pavy's Solution—Test for Glucose (Dextrose)

(1) 120 cc. Fehling's solut., 300 cc. NH_4OH (Sp. Gr. 0.880), 100 cc. 10% solut. NaOH, & W., to make 1000 cc.—(2) Make cold solut. 21.6 Gm. Rochelle salt & 18.4 Gm. NaOH (or 25.8 Gm. KOH) in abt 300 cc. dist. W.; add to solut. 4.157 Gm. $CuSO_4$ in about 200 cc. dist. W., then add 300 cc. NH_4OH (Sp. Gr. 0.880) & suff. W. to make 1000 cc.—10 cc. solut. (= 1 cc. Fehling's solut.) = 0.005 Gm. glucose (dextrose).—Accord. to the U.S.P. IX the reagent is made as follows: (a) 4.158 Gm. $CuSO_4$, & W. to make 500 cc.; (b) 20.4 Gm. Rochelle salt, 20.4 Gm. KOH, 300 cc. stronger NH_4OH , & W. to make 500 cc.; for use mix eq. vols of a & b.

PAWPAW—see *Papaw*

PEAR OIL—see *iso*-Amyl Acetate

PEARL MOSS—see *Chondrus*

PEARL SPAR—see *Dolomite*

PEARL WHITE—see *Bismuth Oxychloride*; *Bismuth Subnitrate*

PEARLASH—see *Potassium Carbonate*

PEARSON'S SOLUTION—see *Sodium Arsenate*, *Dilute Solution*

PECTINOSE, OR PECTIN SUGAR—see *Arabinose*

PÉLIGOT'S SALT—see *Potassium Chlorochromate*

Pelletierine

Mixt. of pelletierine (punicine), $C_8H_{15}NO$, & isopelletierine, $C_8H_{15}NO$, both alkaloids fr.

root-bark *Punica Granatum*, L. (Pomegranate).—Brown, oily liq.—SOL.: A., C.—ACTION: Teniafuge.—USES: Us'y as sulphate or tannate (q.v.).—DOSE: 0.03–0.5 Gm. ($\frac{1}{2}$ –8 grn.).

do. —B.P.C.

Punicine. — $C_8H_{15}NO = 141.17$.—Liquid alkaloid fr. bark of *Punica Granatum*.—Colorl., volat., oily liq.; bec. brown on expos. to air.—SOL.: A., C., E., 23 W.—SP. GR.: 0.988 at 15.5° C.—BOIL.: 195° C. w. part. decomp'n.—ACTION: Teniafuge.—DOSE: 0.2–0.4 Gm. (3–6 grn.).

Pelletierine Hydrobromide

Punicine Hydrobromide, — $C_8H_{15}NO \cdot HBr = 222.10$.—Brown, visc. mass.—SOL.: W., A.—USES: Paralysis of ocular muscle having its origin in the 3rd & 6th pairs of nerves.—DOSE: 0.12 Gm. (2 grn.) 4 t.p.d.

Pelletierine Hydrochloride

Punicine Hydrochloride.—Brown, syrupy mass.—SOL.: W.—USES & DOSE: As of Pelletierine Sulphate.

Pelletierine Nitrate

Punicine Nitrate.—Brown, syrupy mass.—SOL.: W.—USES & DOSE: As of Pelletierine Sulphate.

Pelletierine Sulphate

Punicine Sulphate.—Brown, syrupy liq.; somet. cryst. mass.—SOL.: W., A.—ACTION: Anthelmintic.—DOSE: 0.3–0.5 Gm. (5–8 grn.) us'y w. 0.5 Gm. (8 grn.) tannin in 30 cc. (1 fl. oz.) W., & brisk cathartic $\frac{1}{2}$ hr later.—MAX. D.: 1 Gm. (15 grn.) single & p.d.—ANTID.: Alcoh. liquids, mustard plasters, friction.

Pelletierine Tannate Merck—Incompletely Sol. in Ether

Punicine Tannate.—Mixt. of punicine, isopunicine, methylpunicine, & pseudopunicine, tannates.—Light-yellow, odorl., amorph., tastel. powd.—SOL.: Abt 250 W. at 25° C., A., sltly E., also in warm dil. acids, & insol. C., U.S.P.—ACTION: Anthelmintic.—USES: Principal & most serviceable salt of pelletierine.—DOSE: 0.12–0.5 Gm. (2–8 grn.); aver. dose, 0.25 Gm. (4 grn.); doses of 0.5–1 Gm. (8–15 grn.) in 30 cc. (1 oz.) W., followed in $\frac{1}{2}$ hr by cathartic also have been recommended. Larger doses than these are also mentioned in literature, but are not advisable.—MAX. D.: 1 Gm. (15 grn.) single & p.d.—VETER. MED., f. tapeworm in dogs, 0.3–0.4 Gm. (5–7 grn.).

Pellet's Solution—Test for Glucose (Dextrose)

Solut. 68.7 Gm. cryst. $CuSO_4 \cdot 5H_2O$, 200 Gm. Rochelle salt, 100 Gm. anhyd. Na_2CO_3 , & 7 Gm. NH_4Cl , in W. to 1000 cc.—1 cc. solut. = 0.005 Gm. glucose (dextrose).

PELLIDOL—see *Dimazon*

PELLITORY—see *Pyrethrum*

Pellotine Hydrochloride

$C_{11}H_{13}NO(OCH_3)_2 \cdot HCl = 273.69$.—Salt of alkaloid fr. *Anhalonium Williamsii*, (Pellote),

a Mexican Cactaceæ.—Colorl. cryst.—SOL.: W.—ACTION: Hypn.—USES: Psychic disturbances.—DOSE: 0.03–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—*Subcut.*, 0.01–0.02 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.).—MAX. D.: *Intern.*, 0.06–0.08 Gm. (1– $1\frac{1}{2}$ grn.); in maniacal excitement, 0.06 Gm. (1 grn.) subcutaneously.

PELOSINE—see *L-Beberine*

PENNYROYAL—see *Hedeoma*; *Pulegium*

Pennyroyal—B.P.C.

Dried lvs & flowering tops of *Mentha Pulegium*, L., Labiatae.—HABIT.: Great Britain; Europe.—CONSTIT.: Chiefly vol. oil.—ACTION: Antispasm.; Emmenag.—USES: As of pepper-mint.—DOSE: 2–4 Gm. (30–60 grn.).

PENTA- & HEXA-METHYLPARAROSANILINE HYDROCHLORIDE—see *Pyoktanin Blue*

Pentadecyltolylketone

Tolylpentadecylketone.— $\text{CH}_3\text{C}_6\text{H}_4\text{CO.C}_{15}\text{H}_{31}$ = 330.42.—Fr. toluene & palmityl chloride by AlCl_3 .—Wh. powd.—SOL.: v. sltly cold A.—MELT.: 60° C.—The fused & solidified substce emits a bluish-green light on breaking or attrition.—USES: In investigations w. cathode rays.

PENTAL—see *Amylene*

Pentamethylenediamine

Cadaverine; Animal Coniine.— $\text{NH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$ = 102.15.—Ptomaine formed in albumin by putrefaction.—Syrupy liq.; odor. of piperidine & spermine; fumes & attracts CO_2 on expos.—SOL.: W., A.; sltly in E.—BOIL.: 178°–179° C.—USES: Manuf. piperidine.—NOTE: Product of the comma bacilli; always found in cholera discharges.—CAUT.: Keep fr. air.

PENTAMETHYLENETETRAZOL—see *Metrazol*

PENTANDIACID—see *Acid Glutaric*

PENTANDIMETHYLICACID CHLORIDE—see *Diethylmalonyl Chloride*

Pentane

Amyl Hydride.— $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ = 72.12.—Low-boiling fraction fr. petroleum.—Colorl., inflam. liq.; pleas., fruity odor.—SOL.: Eas. A., E.—SP. GR.: 0.634 at 15° C.—BOIL.: 35°–40° C.—USES: Proposed as anesthetic.

Pepo—U.S.P. X

Pumpkin Seed.—Dried ripe seeds of cultivated varieties of *Cucurbita Pepo*, L., Cucurbitaceæ.—HABIT.: Southern Asia; Europe; America.—CONSTIT.: Fixed oil; acrid resin; proteids (myosin & vitellin); sugar.—ACTION: Teniafuge; Vermifuge.—DOSE: 30–120 Gm. (1–4 oz.); aver. dose, 30 Gm. (1 oz.).—Fl'dextr., 15 cc. (4 fl. dr.).

Pepper—N.F. V; B.P.C.

Black Pepper.—Dried unripe fruit of *Piper nigrum*, L., Piperaceæ. (Wh. pepper is the de-corticated ripe fruit of *Piper nigrum*).—HABIT.: India, Malabar coast; Philippines; Sumatra; Java; Ceylon; Borneo, &c.—CON-

STIT.: Volat. oil (1%–2.3%, B.P.C.); piperine (5%–8.25%, B.P.C.); piperidine; chavicin; fat; proteids; resin.—ACTION: Stim.; Febrif.; Rubefac.; Tonic; Irritant; Carmin.; Antipyret.—USES: Chiefly as spice. Wh. pepper is used the same way.—DOSE: 0.3–1 Gm. (5–15 grn.); aver. dose, 0.5 Gm. (8 grn.).—Extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr. 0.3–1 cc. (5–15 M).—Oleo-resin, 0.015–0.06 cc. ($\frac{1}{4}$ –1 M).

PEPPERIDGE BUSH—see *Barberry Bark*

Peppermint—U.S.P. X; B.P.C.

Brandy Mint; Lamb Mint.—Dried lvs & tops of *Mentha piperita*, L., Labiatae.—HABIT.: Asia; Europe; North America; cultiv. in gardens.—CONSTIT.: Volat. oil; tannin; resin; gum.—ACTION: Arom.; Carmin.; Nervine; Antispasm.—USES: Colic, flatulence, cholera, & diar.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose, 4 Gm. (60 grn.).

PEPPERMINT CAMPHOR—see *Menthol*

Pepsin Merck—U.S.P. X—Gran., Powd., Scales, or Spongy

Substce cont'g a proteolytic enzyme fr. glandular layer of fresh stomach of hog; digests not less than 3000 times its wt of freshly coagulated & disintegrated egg albumin in $2\frac{1}{2}$ hrs at 52° C. w. W. acidul. w. HCl.—Wh., or yellowish-wh., transp. or transluc. scales, granules, amorph., hygrosc. powd., or spongy masses; sltly acid or saline taste.—SOL.: Freely in W., w. opalescence; dil. HCl; alm. insol. A., C., E.—ACTION: Proteolytic.—USES: *Intern.*, dyspep.; peptonizing milk f. invalids; digesting false membr. (in croup & diphth.).—*Extern.*, digest. gangr. tissue fr. unhealthy wounds; f. this purpose the stronger grades are used. Large doses may be taken w. impunity.—DOSE: 0.06–1 Gm. (1–15 grn.), or more, 3 t.p.d. in solut. or powd.; aver. dose, 0.5 Gm. (8 grn.).—INCOMP.: Alcohol, tannin, alkali carbonates, or chlorides.

do. Merck—Saccharated—N.F. V

Pepsin U.S.P. reduced w. milk sugar (1:10).—DOSE: Aver. 1 Gm. (15 grn.).

do. —B.P.—Powd. or Scales

1 part digests 2500 parts freshly coagul. & disintegrated egg albumin in 6 hrs at 40°–41° C.

PEPSIN, VEGETABLE—see *Papain*

Peptone Merck—Fr. Meat—Dried

Reddish-yellow powd.; charact. meat extr. odor, & sltly bitter but not unpleas. taste.—SOL.: All prop. W. (solut. is brown & alm. neutr. or sltly acid); sltly in dil. A.; insol. A., E.—USES: *Techn.*, prepar. nutrient media f. bacteriological work; also in tests f. acetone (Bardach), formaldehyde (Richmond-Boseley), & alantoin (Wiechowski).

do. —From Meat—Soft

Brown, paste-like mass; slt. odor of meat extract, & somewh. bitter but not unpleas.

taste.—**SOL.**: W. (solut. is brown, & alm. neutr. & is pptd by excess strong A.); insol. E.—**USES**: As nutrient; also as of preced'g.—**DOSE**: Tea- to tablespoonful.

do. Witte

A peptone especially prepared & intended f. use in prepar'g nutrient media f. bacteriol. work. Uniform in composition & reliable in action.

PEPTONE, BISMUTHATED—see Bismuth Peptonized

Peralga

Amidopyrine Diethylbarbiturate.— $C_{34}H_{46}N_8O_5$ = 646.60.—A comp'd of 2 mol. amidopyrine & 1 mol. veronal.—Yellow powd.—**SOL.**: Eas. hot W.—**MELT.**: 95°–97° C.—**ACTION**: Sedat.; Analges.—**USES**: Tabetic pains, headache, painful menstruation, toothache, trigeminal neuralgia.—**DOSE**: 0.4–0.6 Gm. ($\frac{1}{2}$ –10 grn.); children, 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.).

Perchlorbenzene

Hexachlorbenzene (or, -zol); Julin's Carbon Chloride.— C_6Cl_6 = 284.79.—Fr. chloranil by PCl_5 & PCl_3 by heat.—Wh. need.—**SOL.**: Hot W., B.; insol. cold W. & A.; v. sltly E.—**MELT.**: 223° C.—**BOIL.**: 318° C.

PERCHLORETHANE—see Carbon Trichloride

PERCHLORETHYLENE—see Carbon Dichloride

PERCHLORMETHANE—see Carbon Tetrachloride

Pereirine

$C_{19}H_{24}N_2O$ = 296.30.—Alkaloid found w. geissospermine in bark of *Geissospermum Vellozii*, Alem. (Pao Pereiro Bark).—Brownish, amorphous powd.—**SOL.**: A., C., E.; insol. W.—**MELT.**: 124° C.—**ACTION**: Antiper.; Antipyr.—**USES**: Remit. & intermit. fevers inst. of quinine.—**DOSE**: 0.5 Gm. (8 grn.) single; 2 Gm. (30 grn.) p.d.

Pereirine Hydrochloride

$C_{19}H_{24}N_2O.HCl$ = 332.77.—Brown, amorph. powd.—**SOL.**: W., A.—**ACTION** & **USES**: As of Pereirine Alkaloid.—**DOSE**: 0.5 Gm. (8 grn.) single; 2 Gm. (30 grn.) p.d.

Pereniy's Chromo-Nitric Acid

0.15 Gm. CrO_3 , 30 cc. W., 30 cc. A., & 40 cc. 10% HNO_3 .—**USES**: Fixing delicate vegetable & animal specimens.

PEREZOL, or PEREZON—see Acid Pipitzahoic

Perhydrit

Perhydrol-Urea Merck.— $CO(NH_2)_2 + H_2O_2$ = 94.07.—Wh. powd., stable in air.—34%–35% H_2O_2 .—**SOL.**: 2.5 W.; partly decomp. by A. & E. into urea & H_2O_2 .—**USES**: Where H_2O_2 indicated; partic. useful f. extemporaneous prep. of H_2O_2 , as in the field, f. travelers, etc. Mktd in tablets of 1 Gm. ea.; 3 tabs. + 100 cc. W. = 1% solut. H_2O_2 ; also mktd as pencils of 0.6 Gm. & 0.13 Gm. ea.

PERHYDROL—see Superoxol

PERHYDROL-UREA—see Perhydrit

Periodyl

Ricinstearolic - Acid Diiodide; Dijodyl.— $CH_3(CH_2)_5.CHOH.CH_2.Cl; Cl.(CH_2)_7.COOH$ = 550.19.—Colorl., tastel., cryst. needles; 46.2% I.—**SOL.**: Dil. alkalies; insol. W., acids.—18 Gm. equal in effect to 80–100 Gm. potass. iodide, because comparatively slowly yet uniformly eliminated, & alm. compl. utilized in the system. No injurious retention or accumulation, hence no disagr. byeffects likely. Passes the stomach unchanged, but is diss. in & absorbed from the intestines, hence no gastric derangements.—**USES**: As of iodides, in syph., rachitis, arteriosclerosis, scrofula, bronchitis, asthma, tuberculosis, etc.; also as prophylactic f. goiter.—**DOSE**: 1–2 tabl. of 0.3 Gm. (5 grn.) ea., 1–3 t.p.d., after meals. Children half the dose. As prophylactic in goiter, 0.0065 Gm. ($\frac{1}{10}$ grn.) in tabl.—Mktd in tablets of 0.3 Gm. (5 grn.), & of 0.0065 Gm. ($\frac{1}{10}$ grn.), each.

Periplocin

$C_{38}H_{48}O_{12}$ = 600.53.—Glucoside fr. bark of *periploca græca*, L. (Milk Vine).—Yellow, amorph. powd.—**SOL.**: A., W.—**MELT.**: Abt 205° C.—**ACTION**: Cardiac Tonic.—**USES**: Cardiac dis.—**MAX. D.**: Subcut., 0.001 Gm. ($\frac{1}{80}$ grn.) diss. in 0.9% NaCl solut., daily, or at intervals of 2–3 days.

Peristaltin

$C_{14}H_{18}O_8$ = 314.21.—Glucoside fr. cascara sagrada.—Yellowish-brown, hygrosc. powd.—**SOL.**: W., dil. A.; diffic. absol. A.; insol. B., E.—**ACTION**: Cath.—**USES**: Mild lax., intern. or subcut.—**DOSE**: 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.).

"PERMANENT" WHITE—see Barium Sulphate

Pernambuco

Fernambuco; Brazil-, Nicaragua-, or Lima, Wood; Red-wood.—Wood of *Casalpinia echinata*, Lam., *Casalpinia*aceæ.—**HABIT.**: Tropical America (Brazil).—**CONSTIT.**: Brazilin.—**USES**: *Techn.*, dyeing red; manuf. a red lake pigment.—As indicator (in form of decoct.) in volumetr. anal. (alkalies = purplish-red; acids = yellow).

PERNAMBUCO PAPER—see Brazilin Paper

Peronin

Benzylmorphine Hydrochloride Merck.— $C_{17}H_{18}(O.C_6H_5.CH_2)NO_2.HCl$ = 411.80.—Wh. powd.—**SOL.**: 133 W.; 218 A.; sltly C.; E.—**ACTION**: Narcotic; somewh. weaker than morphine, but free fr. the disturbing byeffects of the latter.—**USES**: Inst. of morphine, partic. where latter contra-indicated, or where idiosyncrasy exists. Also to relieve annoying cough in phth., & in bronch. catarrh; also in asthmatic affect., whoop.-cough, hysteria, & rheumatic & neuralgic pains.—**DOSE**: 0.02–0.04 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ grn.).—**MAX. D.**: 0.06 Gm. (1 grn.) single; 0.2 Gm. (3 grn.) p.d.—**APPL.**: In 1%–2% solut. as loc. ocular anesthetic.

PEROSMIC ANHYDRIDE—see Acid Osmic

Perovettes

Egg-shaped tablets of Perhydrit (*q.v.*), which eas. disintegrate in W., & afford mixtures

having a menthol taste, & suitable f. use as a mouth- or tooth-wash.

Peroxoids

5 grain tablets of Magnesium-Superoxol, and used like the latter (*q.v.*).

PERSIAN BARK—see Cascara Sagrada

PERSIAN BERRIES—see Frangula

PERSIAN RED—see Lead Chromate, Red

PERSIO—see Cudbear

Persoz' Solution—Test for Silk & Wool

Solut. 10 Gm. ZnCl_2 in 10 cc. W., w. 2 Gm. ZnO added & shaken w. solut.—Silk diss. on warming w. solut. to 45° C.; wool does not.

PERUVIAN BALSAM—see Balsam Peru

PERUVIAN BARK—see Cinchona

Petrolatum Merck—Amber—U.S.P. X

Amber Petroleum (Paraffin) Jelly; Soft Paraffin, B.P.; Vaseline; Saxoline; Cosmoline; Adeps Petrolei.—Purified semi-solid mixt. of hydrocarbons, chiefly of the methane series, w. high carbon content, & of genl. formula $\text{C}_n\text{H}_{2n+2}$.—Yellowish to light amber, semi-solid; oint. consistence.—SOL.: B., C., E., benzin, CS_2 , oils; stily A.; insol. W., G.—SP. GR.: 0.820–0.865 at 60° C., U.S.P.; (0.840–0.870 at 42°–46° C., B.P.C.).—MELT.: 35°–54° C., U.S.P.; 42°–46°, B.P.—ACTION: Antisept.; Emollient.—USES: *Extern.*, chapped hands, excoriated surf.; oint. base, &c.—*Techn.*, modeling clay; leather grease; lubricating fire-arms & machinery; shoe polish; greasing hoofs; rust preventatives; soap, putz pomade, &c.

do. Merck.—Liquid—Light or Heavy f. Intern. Use.—U.S.P. X

Liquid Paraffin, B. P.; White Mineral, or Paraffin, Oil; Alboline; Paroleine; Saxol; Adepsine Oil; Glymol.—Mixt. of liquid hydrocarbons obt'd fr. petroleum.—Colorl., oily, nonfluoresc., transp. liq. becoming thicker w. cold; odor of petroleum when warm.—SOL.: B., C., E., CS_2 , benzin, oils; insol. W., A.—SP. GR.: 0.828–0.905 at 25° C. U.S.P.; (0.860–0.890 at 15.5° C., B.P.).—BOIL.: Not below 360° C., B.P.C.—ACTION: Emollient Antisept.; Lax.—USES: *Intern.*, chronic bronch. catarrh; constipation.—*Extern.*, as spray in dis. of throat, larynx, bronch. tubes, & nasal passages; solvent f. various dermics insol. in W., *e.g.*, iodine, bromine, thymol, iodoform, etc., & as vehicle f. mercurials, f. intramusc. inj., etc.—DOSE: As lax., 1–6 tablespoonfuls, single or per day; aver. dose 15 cc. (4 fl. dr.).

do. Merck.—White—U.S.P. X

White Petroleum Jelly; Albolene.—Yellow petrolatum, wholly or nearly decolorized.—Wh. semisolid; oint. consistence.—SOL., SP. GR. MELT., etc.: As of yellow petrolatum.—Very stable, hence used as oint. base & cosmetic; also in extracting perfumes, & as of paraffin, soft, yellow.

do. Veterinary

Unfiltered, or imperfectly filtered, petroleum res.—Dark-yellow, semi-solid mass.—ACTION: Antisept.; Emollient.—USES: As oint. base.

Petroleum—Crude

Crude, or Mineral, Oil; Rock or Coal Oil; Seneca Oil.—OCCUR.: U. S.; Mexico; Persia; Russia; Roumania; Poland; Dutch East India, etc.—Dark-yellow, brownish, or greenish-black, oily liq.—SOL.: C., E.—ACTION: Antisept.—USES: *Intern.*, dis. of respiratory tract, intest. ferment., & typhoid.—*Extern.*, skin dis.—*Techn.*, as source of benzin, gasoline, petrolatum (liquid & solid), lubricating oils; fuel oil, etc.—DOSE: 2 cc. (30 M).

PETROLEUM BENZIN, or ETHER—see Benzin

PETROLEUM ETHER, VERY LIGHT—see Canado

PETROLEUM JELLY—see Petrolatum

PETROLEUM NAPHTHA—see Benzin

PETTY-MORREL—see Aralia

Peucedanin

Imperatorin.— $\text{C}_{16}\text{H}_{16}\text{O}_4$ (?) = 272.21 (?).—Bitter prin. fr. root Peucedanum officinale, L.—Faintly yellow cryst.—SOL.: E., petrol. E., & solut. KOH; stily cold A.—MELT.: 81°–82° C.

Phanodorn

Ethylcyclohexenylbarbituric Acid Merck.— $(\text{CH}_2)_4(\text{CH})\text{C}(\text{C}_2\text{H}_5)\text{C}(\text{CONH})_2$; $\text{CO} = 236.20$.—Wh., odorl., bitter, cryst. powd.—SOL.: Diffic. W., 5 A., 20 E.—MELT.: Abt 173° C.—ACTION: Hypnotic; Sedat.—USES: Nervous sleeplessness, psychic restlessness; as sedat. in neurasthenia, hysteria, convulsions, seasickness, vomiting of pregnancy, tremors of paralysis agitans & multiple sclerosis.—DOSE: *Hypnotic*, 0.1–0.2 Gm. (1½–3 grn.) 1 hr bef. retiring, best in hot tea; *sedat.*, 0.1–0.2 Gm. (1½–3 grn.) sev'l t.p.d. in cold water; in psychic excitement, 0.3–0.5 Gm. (5–8 grn.)

Phaoretin

Resinous extr. fr. rhubarb-root.—Yellowish-brown powd.—SOL.: A., alkalies; stily W.

PHARBITIS SEEDS—see Kaladana

PHARBITISIN—see Kaladana Resin

PHASEOMANNITE—see Inosit

Phasin

Poisonous agglutinin fr. beans (Kobert).—Wh., amorph. powd.—SOL.: In 0.9% solut. NaCl.—A 1% solut. has a powerfully agglutinating action on red blood cells of all animals.

PHEASANT'S EYE—see Adonis Aestivalis

PHEASANT'S EYE, VERNAL—see Adonis Vernalis

Phenacaine

Holocaine Hydrochloride; Ethenyl-paradiethoxy-diphenyl-amidine Hydrochloride.— $\text{CH}_3\text{C}(\text{N}(\text{C}_6\text{H}_4\text{OC}_2\text{H}_5))(\text{NH}.\text{C}_6\text{H}_4\text{OC}_2\text{H}_5).\text{HCl} + \text{H}_2\text{O} = 352.77$.—Wh. cryst. powd.—SOL.: Abt 50 cold W.; eas. boil. W., A., C.; insol. E.—MELT.: 189° C., after drying to const. wt.—ACTION: Loc. Anesthetic, like cocaine.—USES:

Chiefly in eye dis. in 1% solut. (2-5 drops are instilled).—NOTE: Aqu. soluts. should not be prep'd in glass, but only in porcel., vessels; so made they are stable & withstand boiling.—INCOMPAT.: Alkalies & alkali carbonates; alkaloidal reagents.

PHENACETIN—see Acetphenetidin

Phenacetolin

Degener's Indicator.—React.-prod. of conc. H_2SO_4 , glac. acet. acid, & phenol.—Yellowish-brown powd.—SOL.: A.; sl'tly W.—Indicator Solut.: Digest 1 Gm. w. 100 cc. warm A., & filter when cold. Of this solut. 2-3 drops suffice f. 100 cc. fluid to be titrated.—USES: As indicator, partic. f. mixtures of alkali hydroxides & carbonates (yellow color changes to red when hydroxide neutralized, & again to yellow when carbonate fully decomposed by acid); also determ'g alkalinity in water analysis.

PHENAMINE—see Phenocoll Hydrochloride

Phenanthrene

Orthodiphenylene-ethylene.— $(\text{C}_6\text{H}_4.\text{CH})_2 = 178.15$.—Coal-tar constit. isom. w. anthracene.—Colorl., lustr. leaflets or platelets.—SOL.: Eas. B., C., E., acetic acid, CS_2 ; sl'tly hot A.; insol. W.—MELT.: 100°C .—BOIL.: 340°C .—USES: *Techn.*, in manuf. dyes, & explosives (as stabilizer).

Phenanthrenequinone

$(\text{C}_6\text{H}_4.\text{CO})_2 = 208.13$.—Fr. phenanthrene by oxid'n.—Orange-red cryst.—SOL.: B., E., acetic acid, hot A.—MELT.: 202°C .—Affords a dark-green color w. conc. H_2SO_4 .—USES: Test f. diamines (Hinsberg) & thiotolene (Laubenheimer).

PHENAZONE—see Antipyrine

PHENAZONE SALICYLATE—see Salipyrine

Phenetol

Ethylphenyl, or Phenylethyl, Oxide or Ether; Ethyl Phenate, or Carbolate.— $\text{C}_6\text{H}_5.\text{O}.\text{C}_2\text{H}_5 = 122.12$.—Oily liq.—SOL.: A., E.—Sp. GR.: 0.971 at 15°C .—BOIL.: 172°C .

p-PHENETOLCARBAMIDE—see Sucrol

Phenetsal

Acetparamidosalol; Salophen; Acetylparaminophenyl Salicylate; Acetylparamidosalol.— $(\text{C}_6\text{H}_4.\text{OH}.\text{CO})\text{O}.\text{C}_6\text{H}_4.\text{NH}.\text{COCH}_3 = 271.19$.—Fine wh., odorl., tastel., cryst., leaflets, or powd.—51% salicylic acid.—SOL.: Sl'tly in cold, more eas. in hot, W.; freely in A., B., E., & alkaline soluts.—MELT.: 187° – 188°C .—ACTION: Antisep.; Antipyr.; Analg.; Antirheum.—USES: *Intern.*, rheum., gout, typhoid fever, diarrh., dysent., chorea, etc.—*Extern.*, in psoria. & o. itching skin dis., in 10% oint.—DOSE: 0.3–1 Gm. (5–15 grn.).—MAX. D.: 1.3 Gm. (20 grn.) single; 6 Gm. (90 grn.) p.d.—In VETER. MED., for dogs, 0.6–2 Gm. (10–30 grn.).—INCOMPAT.: KOH; NaOH.

PHENIC ACID—see Phenol

PHENMETHYLOL—see Alcohol Benzylic

Phenobarbital—U.S.P. X

1 Luminal; 2 Phenylethylbarbituric Acid; Phenylethylmalonylurea.— $(\text{C}_6\text{H}_5)(\text{C}_2\text{H}_5)\text{C}:$

$(\text{CONH})_2\text{CO} = 232.17$.—Wh., odorl., sl'tly bitter, cryst. powd.—SOL.: Abt 1000 W., 8 A., 40 C., 13 E., 700 B., at 25°C ., & alkalies, U.S.P.—MELT.: 172° – 174°C .—ACTION: Hypnot., & Sed., f. intern. & subcut. use.—USES: Insomnia & conditions of excitement of the nervous system, wakefulness of mania, delirium tremens, dementia praecox, hysteria, maniac-depressive insanity, epilepsy, arteriosclerosis, morphine withdrawal, & post-apoplectic conditions.—DOSE: 0.03–0.3 Gm. ($\frac{1}{4}$ –5 grn.), incr. if neces.; aver. dose 0.03 Gm. ($\frac{1}{2}$ grn.).—MAX. D.: 0.8 Gm. (12 grn.).—The doses should be much smaller f. women, weak men, & phthical subjects.

Phenobarbital-Sodium

1 Luminal-Sodium; Soluble Luminal.— $(\text{C}_6\text{H}_5)(\text{C}_2\text{H}_5):\text{C}:\text{CONH}.\text{CONNa}:\text{CO} = 254.16$.—Wh., cryst. hygrosc. powd.—SOL.: Eas. W.—ACTION: Hypnotic.—USES & DOSES: As of phenobarbital, but partic. adapted f. subcut. & rectal use, because eas. soluble. Solut. (20%) may be sterilized, but do not keep long, hence should be used fresh.

Phenocoll Hydrochloride—B.P.C.

Phenamine; Aminoacetphenetidin, or Glycocolparaphenetidin, Hydrochloride.— $\text{C}_6\text{H}_4(\text{OC}_2\text{H}_5)[1].(\text{NH}.\text{COCH}_2.\text{NH}_2)[4].\text{HCl} = 230.65$.—Wh., cryst. powd.—SOL.: A., 16 cold, more eas. hot, W.; sl'tly B., C., E.—ACTION: Antipyr.; Antirheum.; Analg.; Diaph.; Antisep.—USES: *Intern.*, phth., typhoid, pneum., rheum., neural., influenza, whoop-cough; is not suitable for use in malaria. The sweating is checked by atropine.—*Extern.*, as antisep. in 5% solut. as wet dress. in dermatitis, in gonorrh. & leucorrh., & inst. of iodoform.—DOSE: 0.3–1 Gm. (5–15 grn.).—Subcut., 0.25–0.5 Gm. (4–8 grn.).—MAX. D.: 1.5 Gm. (23 grn.) single; 5 Gm. (75 grn.) p.d.—VETER. MED., as in human medicine; dogs, 0.5–1 Gm. (8–15 grn.); subcut., 0.3–0.6 Gm. (5–10 grn.).—INCOMPAT.: Solub. hydroxides or carbonates.

Phenocoll Salicylate

Salocoll.— $\text{C}_6\text{H}_4(\text{OC}_2\text{H}_5).\text{NH}(\text{COCH}_2.\text{NH}_2).\text{C}_7\text{H}_6\text{O}_3 = 332.26$.—Fine, wh. need.; sweetish taste.—SOL.: 200 cold, eas. hot, W.—ACTION: Antipyr.; Antisep.; Analg.—USES: Rheum., gout, chorea, pleurisy, & fevers, partic. in influenza.—DOSE: 0.3–1 Gm. (5–15 grn.).—INCOMPAT.: Solub. hydroxides & carbonates, & substcs incompat. w. salicylates generally.

Phenol Merck—Reagent

Carbolic Acid.— $\text{C}_6\text{H}_5\text{OH} = 94.08$.—Colorl., acicular cryst., or wh., cryst. mass.—SOL.: Abt 15 W.; eas. A., C., E., G. —After being melted, congeals at not below 40°C .—BOIL.: 182.6°C . when anhydrous.

MAXIMUM OF IMPURITIES

Evap'n Res.	0.020%
Water &c.	0.5%

USES: As standard in test'g disinfectants; in stain'g soluts in microscopy; detect'g benzaldehyde, H_2O_2 , & lactic acid; also as reag. f. tar dyes (Bernède), lignin (Czapek; Höhnell),

glycerin (Deiss; Reichl), HNO_2 (Denigès; Frankland; Plugge; Wagner), glycolcol (Engel), organic acids (Fenton), colophony (Förster), albumin (Fuchs; Méhu; Meymott-Tidy; Milard; Obermayer), HNO_3 (Grandval-Lajoux; Sprengel; Wagner), quinoidine (Hager), rosin oil (Halphen), formaldehyde (Hegner), quinine (Hesse), aniline (Jacquemin; Ludwig), oxy-cellulose (Jandrier), Cu (Jaworowski), N (Iodlbauer), saccharin & vanillin (Kastle), elaterin (Lindo), iodoform (Lustgarten), dulcin & nitrobenzene (Morpurgo), HCl in FeCl_3 (Reale), kryofine (Schreiber), NH_3 (Thomas; Visser), confierin (Tiemann), strophanthin (Unverhau), lime (White), & also f. syphilis (Schürmann).—**ANTID.**: See Phenol, U.S.P.X.

Phenol Merck—C.P.—Loose Cryst.

Acid Carbolie; Phenic, or Phenylic, Acid; Phenyl Hydroxide; Benzophenol; Monoxybenzene; Hydroxybenzene (or -zol).— $\text{C}_6\text{H}_5\text{OH} = 94.08$.—Colorl. cryst.; charact. odor.; deliq. in moist air.—**SOL.**: Abt 15 W.; eas. A., C., E., G.—After being melted, congeals at not below 39°C .

MAXIMUM OF IMPURITIES

Evap'n Res.....	0.050%
Water, Etc.....	1.0%

USES: As of the Reagent, above.

do. Merck—U.S.P. X

DESCRIPTION: As preceding.—Not less than 98% $\text{C}_6\text{H}_5\text{OH}$.—**SOL.**: Abt. 15 W. at 25°C ., & freely in A., C., E., G., CS_2 , & oils, U.S.P.; freely in solut. caust. alkalies, Sq.; also in mineral oils, soft paraffin.—**CONGEAL. POINT**: Not below 39°C ., U.S.P.—**MELT.**: 39° – 40°C ., B.P.—**BOIL.**: Not above 183°C ., B.P.—**ACTION**: Antisept.; Antipyr.; Caustic; Disinf.; Topical Anesth.—**USES**: *Intern.*, diarrh., gastr. fermentation, tetanus, typhoid, cholera, etc.—*Extern.*, disinf. soluts.; to abort boils or carbuncles; dress. wounds; keep flies fr. horses & cattle. In ulcers, inflamm., vener. vegetations, nevi, hemorrhoids, toothache, whoop-cough, dipth., &c. To prevent spread. of zymotic diseases.—**N.B.**: Dangerous to infants; poison'g occurs by absorption.—*Techn.*, manuf. picric acid, phenolphthalein, salol, phenacetin, resorcinol, dyes, salicylic acid, synthetic resins & waxes, celluloid, & intermediates; perfumery substcs, paint & varnish removers; synthesis of rubber & artificial tannins; in sheep dips; dyeing, photography; chem. synthesis.—**DOSE**: 0.015–0.12 Gm. ($\frac{1}{4}$ –2 grn.), h'ly dil. w. W., or in pills, sev'l t.p.d. in abnorm. gastric & intest. ferment.; aver. dose, 0.06 Gm. (1 grn.).—*Subcut.* in tetanus, 2 cc. (30 M) of 5% solut. ev. 2 hrs f. 6 days, then ev. 4 hrs f. 5 days.—**MAX.** D.: 0.12 Gm. (2 grn.) single, & 0.5 Gm. (8 grn.) daily.—**INJ.**: In urethra or bladder 1–2:1000.—**APPL.**: By spray, 1% aqu. solut.; as wash, 0.2%–0.5% solut.; as caust., in substance, or conc. solut.; as disinf. 0.5%–5% aqu. solut.; in carbolized gauze; f. utensils & rooms, 1% aqu. solut.; mouth-wash & gargle, 1% solut.; also used as glycerite (20%), oint. (3%),

or w. lanum & petrolatum (3%); carbolized glycerin (10%).—**VETER. MED.**: *Intern.*, in infectious dis. & in tetanus in horses & pigs, given in doses of 0.36–0.4 Gm. (6–7 grn.) per day, in 2%–3% solut.—*Extern.*, 1%–3% solut. f. wounds, ulcers, phlegmons, etc.—**ANTID.**: *Extern.*, wash w. plenty water & bathe w. dil. A. or whiskey or a bland oil (olive, cottonseed, linseed); *intern.*, milk, raw egg albumin, mucilage, gruel or cornstarch paste, followed by an emetic (tablespoonful mustard in tumbler warm water; inj. stimulants to avoid collapse.—**INCOMP.**: Chloral hydrate; FeSO_4 ; yields a liq. or soft mass when titrated w. acetanilid, butyl-chloral hydrate, camphor, monobromated camphor, lead acetate, menthol, naphthalene, betanaphthol, pyrogallol, resorcinol, salol, sodium phosphate, thymol, urethane, chloralamide, or terpin hydrate; cogulates collodion.—**CAUT.**: Poisonous! Injections & external applications to fingers & toes have caused gangrene, & have proved fatal, hence should be used w. great caution. Keep in dark amber, well-stoppered bottles.

do. Merck—Liquefied—U.S.P. X

9 Gm. melted phenol + 1 Gm. W.; (10 Gm. phenol w. W. to make 11.5 Gm., B. P.).—**USES & DOSES**: As of Phenol, U.S.P.

do. —Technical

Dark, viscid liq.; contains abt 80% phenols (phenol, cresols, xylenols) w. neutral tar oils; transpar. in thin layers; charact., empyreum. odor.—**SOL.**: A., E., & to large extent in hot caustic alkalies; sltly W.—**SP. GR.**: 1.035–1.045.—**ACTION**: Disinf.—**USES**: Gen'l disinf., either in solut. (1–4:200), or mixed w. chlorinated lime, slaked lime, &c., f. urinals, toilets, stables, cess-pools, railway cars, floors, sinks, drains, etc. Not adapted f. wounds.

Phenol Benzoate

Phenyl Benzoate.— $\text{C}_6\text{H}_5\text{COO.C}_6\text{H}_5 = 198.15$.—Fr. phenol, benzoic acid, & POCl_3 .—**Monoclin.**, wh. prisms.—**SOL.**: A., E.—**MELT.**: 68°C .—**BOIL.**: 314°C .

PHENOL-BISMUTH—see Bismuth Carbolate

PHENOL, CAMPHORATED—see Camphor, Phenolated

PHENOL-COCAINE—see Cocaine Carbolate

PHENOL IODIDE, PARA-—see *p*-Iodphenol

Phenol, Iodized—N.F. V

Acid Carbolie Iodized.—**Solut.** 2 I + 6 phenol + 2 G.—**ACTION**: Antisept.; Counter-irrit.; Eschar.—**USES**: Uterine dilatation.—**APPL.**: Pure.

PHENOL-LITHIUM—see Lithium Carbolate

PHENOL-MERCURY—see Mercury Phenate, Mercuric

PHENOL RED—see Phenolsulphonephthalein

PHENOL SALICYLATE—see Salol

PHENOL SODIUM—see Sodium Carbolate

Phenol Sulphoricinate

Phenolsulphoricinic Acid.—Mixt. phenol & sodium sulphoricinate.—Colorl. to yellowish liq.—Misc.: W.—Uses: Usually in the form of the sodium comp'd (see Phenol & Sodium Sulphoricinate).

Phenol & Sodium Sulphoricinate Heryng—25% & 30% Phenol

Both preps. are soluts. of synthetic phenol (25% & 30% respectively) in sodium sulphoricinate Berlioz, prepared espec. f. laryngological use.—Thick, syrupy, yellowish liq.—Misc.: W.—Sp. Gr.: 25% prep., 1.049–1.050, & 30% prep., 1.051–1.052, at 15° C.—Action: Caustic; Antisep.; Rubefac.—Uses: *Extern.*, pure in tuberc., chron. affect. of throat & nose, diphth., laryngeal papilloma (by painting) & warts. In ozena, friction of nasal mucosa w. 25% prep. 1:2–3 W., once daily.

PHENOLATED CHLORAL—see Chloral Carbolated

2-PHENOLMETHYLAL—see Aldehyde Salicylic

PHENOLMETHYLOL—see Saligenin

Phenolphthalein Merck—Reagent

$C_{20}H_{14}O_4$ = 318.21.—Wh. or yellowish-wh., odorl. powd.—Sol.: Abt 10 A.; less readily (abt 50) E.; alm. insol. W.—Melt.: Abt 260° C.—Indicator Solut.: 1 Gm. + 100 cc. A. (solut. should be colorl.); of this solut. abt 3 drops are us'ly suff. f. abt 50 cc. liquid to be titrated.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Alcohol-insol. Matter.....	0.000%
Fluorane.....	None

Uses: Indicator (acids = colorless; alkalis = pink to rose red; PH = 8.5–10.5. For the stock solut. accord. to Michaelis a solut. of 0.04 Gm. in 30 cc. A. & 70 cc. W. is employed) in titrating pract. all mineral & organic acids, both in alcoh. & aqu. liquids, & alkali & alkali earth hydroxides (but not f. NH_3 or most organic bases); fairly useful w. a few alkaloids; free CO_2 ; in physiol. chemistry f. disting. bet. transudates & exudates; in reag. f. blood (Albarran; Boas; Ravenna; Utz), CO_2 (Bitter), metal oxides (Tichborne), & HCN (Weehuizen).

Phenolphthalein Merck—U.S.P. X

Dihydroxyphthalophenone; Dihydroxydiphenylphthalide; Paraphthalein.—(C_6H_4 —OH) $_2$. $\overline{CO.C_6H_4.CO}$ = 318.21.—Fr. phthalic anhydride, phenol, & $ZnCl_2$ by heat.—Wh. or yellowish-wh., odorl., tastel., cryst., powd.—Sol.: 13 A. & abt 70 E. at 25° C., & alm. insol. W., U.S.P.—Melt.: Not below 258° C., U.S.P.; 250°–253° C., B.P.—Action: Lax.—Uses: Habitual constip. Said to be inert in acid gastric conditions, hence best given w. some $NaHCO_3$. Contraindicated in piles or in predisposition to piles.—Dose: 0.06–0.5 Gm. (1–8 grn.); aver. dose, 0.06 Gm. (1 grn.).—It has been stated that up to 2 Gm. (30 grn.) may be given, if necessary.

Phenolphthalein Paper

Wh. paper, impregnated w. a 1% alcoh. phenolphthalein solut. & dried.—Uses: Indic. in alkalimetry (alkalies = red; acids = colorl.).

Phenolphthalin

Phthalin; Dioxotriphenylmethanecarboxylic Acid.—($C_6H_4.OH$) $_2.CO.C_6H_4.COOH$ = 320.23.—Fr. phenolphthalein by reduct. w. Zn & NaOH.—Wh. cryst. powd.—Sol.: A., E.—Melt.: 225° C.—Uses: Test f. oxydases (Kastle-Sheed; Meyer), blood (Deleard; Rivat; Slowzow), & HCN (Thiery; Weehuizen).

PHENOLQUININE—see Quinine Phenate

Phenolsulphonaphthalein—U.S.P. X

Sulphenthal; Phenol Red.—(C_6H_4OH) $_2.CO.C_6H_4SO_2$ = 354.27.—Fr. orthosulphobenzoic acid anhydride & phenol.—Bright-red to dark-red, cryst. powd., stable in air.—Sol.: Abt 1300 W. w. yellow color; 350 A., 500 acetone at 25° C.; alm. insol. C., E., U.S.P.; freely in alkalis w. deep red to violet-red color changed to orange or yellow by slt excess of acid.—Uses: Diagnosing kidney trouble (the sod. salt, which is freely sol. in W., being used).—Dose: Aver., 0.006 Gm. ($\frac{1}{10}$ grn.) (as sod. salt in 1 cc. (15 M)) inj. into lumbar muscles. When injected intramuscularly or intravenously the substance appears in the urine in 5–10 min. if kidneys normal, & much more slowly if kidney trouble exists.—Mkt'd in ampuls cont'g 1 cc. (15 M) = 0.006 Gm. ($\frac{1}{10}$ grn.) sterile solut. of mono-sod. salt. The extent of renal defect is estimated by colorimetric comparison w. a standard, by add'g solut. NaOH to the voided urine. With *intramusc.* inj. the urine is to be voided after 70 min., but after intraven. inj., after 15–30 min.—Also used as indic. in 0.02% alcoh. solut.; PH = yellow 6.8–8.4 red.

Phenoltetrachlorphthalein-Sodium

(C_6H_4ONa) $_2.\overline{CO.C_6Cl_4.CO}$ = 500.00.—Condens. prod. of phenol & tetrachlorphthalic acid or anhydride.—Cream white, odorl. powd.—Sol.: A., E., glac. acetic acid; v. eas. acetone; sltly B., C., CS_2 ; alm. insol. W.; also sol. in alkalis (deep purple when conc., violet red on dil'n & bluish when v. dil.).—Melt.: Abt 316° C.—Uses: Determ. functional activity of the liver.—Dose: As *disodium* salt, 0.05–0.4 Gm. ($\frac{3}{4}$ –7 grn.) by *intraven.* inj. (not subcut. or *intramusc.*).

PHENOLTETRAIODOPHTHALEIN SODIUM—see Phenetiothalein Sodium

PHENOQUIN—see Cinchophen

Phenetiothalein Sodium

Phenoltetraiodophthalein Sodium; Iso-Iodeikon.— $NaO.O.C.C_6I_4.C.C_6H_4OC_6H_4ONa$ = 865.84.—Bronze purple, odorl., sltly hygrosc. granules; 56%–59% I.—Sol.: W., A.—Uses: Roentgenologic exam. of gall bladder & simultaneous test of hepatic function.—Dose: *Intraven.*, 40 Mgm. ($\frac{2}{3}$ grn.) per kilo (2.2 lb.) of body wt, but dose need not exceed 2.5 Gm. (38 grn.) regardless of body wt. The solut. is made w. freshly dist. W., then filter'd thro.

paper, & sterilized f. 15 min. in a boil'g water bath. For gall bladder visualization alone, an aver. dose of 5 Gm. (75 grn.) is given in pills or caps of 1 Gm. (15 grn.) ea. during the evening meal.

Phenoval

Alphabromisovalerylparaphenetidin.— $(\text{CH}_3)_2\cdot\text{CH}\cdot\text{CHBr}\cdot\text{CONH}\cdot\text{C}_6\text{H}_4\cdot\text{O}\cdot\text{C}_2\text{H}_5 = 300.14$.—Colorl., odorl., tastel. cryst.—SOL.: Hot A., more diffic. in cold A., C.; diffic. E.; insol. W.—MELT.: 149° – 150° C.—ACTION: Sed.; Hypn.—USES: Cardiac & vascular neuroses & nervous insomn.—DOSE: 0.5–1 Gm. (8–15 grn.).

Phenoxycaine

$\text{C}_8\text{H}_9(\text{OC}_6\text{H}_5)\text{N}_4\text{O}_2 = 286.21$.—Wh., cryst. powd.—SOL.: A.—MELT.: 143° C.—ACTION: Anesth.; Antineur.; Nar.—USES: Subcut. in migraine, sciatica, rheum., &c.—DOSE: 0.25 Gm. (4 grn.).

PHENYL ACETATE }
PHENYL ACETYL ESTER } see Acetylphenol

PHENYL BENZOATE—see Phenol Benzoate

PHENYL CARBONIMIDE—see Phenyl Isocyanate

"PHENYL CHLORIDE"—see Monochlorobenzene

PHENYL CHLOROFORM—see Benzotrichloride

PHENYL CYANIDE—see Benzonitrile

PHENYL FORMAMIDE—see Formanilide

PHENYL HYDRIDE—see Benzene

PHENYL HYDROXIDE—see Phenol

Phenyl Isocyanate

Carbanil; Phenyl Carbonimide.— $\text{C}_6\text{H}_5\text{N}:\text{C}:\text{O} = 119.08$.—Colorl. liq.; pungent odor.—SOL.: E.; decomp'd by W. or A.—SP.: GR.: 1.092.—BOIL.: 166° C. at 769 mm.—USES: Detect'g diamines in urine.

PHENYL METHYLAMINOPROPANOL—see Ephedrine

PHENYL SALICYLATE—see Salol

PHENYLACETAMIDE—see Acetanilid

PHENYLACETANILID—see Diphenylacetamide

PHENYLACETONITRILE—see Benzyl Cyanide

Phenylacetyl Chloride

$\text{C}_6\text{H}_5\cdot\text{CH}_2\cdot\text{COCl} = 154.56$.—Fr. phenylacetic acid in CHCl_3 by PCl_5 & distil.—Colorl., fum. liq.—SP. GR.: 1.174 at 15° C.—BOIL.: 102° C. at 17 mm.

PHENYLAMINE—see Aniline

α -PHENYL- β -AMINOETHANOL SULPHATE—see Phenylethanolamine Sulphate

PHENYLANILINE—see Diphenylamine

PHENYLAZO- α - α -DIAMINOPYRIDINE HYDROCHLORIDE—see Pyridium

PHENYLBENZAMIDE—see Benzanilid

PHENYLBENZENE—see Diphenyl

PHENYLBENZOYL CARBINOL—see Benzoin

Phenylcarbamide

Phenylurea.— $\text{CO}(\text{NH}_2)\cdot\text{NHC}_6\text{H}_5 = 136.12$.—Fr. KCNO & aniline sulphate by evap'n.—Wh. cryst. powd.—SOL.: Sltly cold, eas. boil., W.; A., E.—MELT.: 147° C.—Possesses narcotic properties.

PHENYLCINCHONINIC-ACID HYDROCHLORIDE—see Chloroxyl

PHENYLDIHYDROQUINAZOLINE TANNATE—see Orexine

PHENYLDIMETHYLPYRAZOLON—see Antipyrine

PHENYLDIMETHYLPYRAZOLON VALER(IAN)ATE—see Antipyrine Valerate

PHENYLENE—see Antipyrine

PHENYLENE BROWN—see Bismarck Brown

m-Phenylenediamine

Metadiaminobenzene (or -zol).— $\text{C}_6\text{H}_4(\text{NH}_2)_2$ [1:3] = 108.11.—Fr. *m*-dinitrobenzene by Sn & HCl.—Rhomb. cryst.—SOL.: A., E.—MELT.: 63° C.—BOIL.: 282° C.—USES: Manuf. dyes; test f. HNO_2 .

o-Phenylenediamine

Orthodiaminobenzene.— $\text{NH}_2\cdot\text{C}_6\text{H}_4\cdot\text{NH}_2$ [1:2] = 108.11.—Fr. *o*-nitraniline by Sn & HCl.—Brownish-yellow cryst.—SOL.: Eas. A., C., E.; sltly W.—MELT.: 102° C.—USES: Organic synthesis.

p-Phenylenediamine Merck—Purified

1,4-Diaminobenzan (or -zene, or -zol); Urso! D.— $\text{NH}_2\cdot\text{C}_6\text{H}_4\cdot\text{NH}_2 = 108.11$.—Fr. *p*-dinitrobenzene by Sn & HCl.—Colorl. to sltly reddish cryst.—SOL.: W., A., C., E.—MELT.: 140° C.—USES: A 2% aqu. solut. w. 1.4% solut. KOH has been used (improperly) as a hair dye. A black color is developed w. 3% H_2O_2 ; brown by 5% FeCl_3 solut. The dye must be used w. caution on living hair, as toxic symptoms may develop! Also used techn. as below; also as reag. (see under the hydrochloride).

do. Merck—Technical

USES: Dyeing dead hair, furs, &c.; also in photochemical measurements, accelerating vulcanization, manuf. azo dyes, etc.

m-Phenylenediamine Hydrochloride Merck

Metadiaminobenzene, or 1,3-Diaminobenzan (or -zene), Hydrochloride.— $\text{C}_6\text{H}_4(\text{NH}_2)_2\cdot 2\text{HCl} = 181.05$.—Sltly reddish powd.—SOL.: A.; eas. W.—ACTION: Lax.—USES: Constipation, diarrh.; acute & tuberculous enteritis.—Techn., Manuf. organ. dyes (triphenyl & azo dyes), & in photogr.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) 3 t.p.d.

p-Phenylenediamine Hydrochloride

$\text{C}_6\text{H}_4(\text{NH}_2)_2\cdot 2\text{HCl} = 181.05$.—Wh. to sltly reddish, cryst.—SOL.: Eas. W.; sltly A., E.—USES: Test f. blood (Boas), abstrastol (Covelli), H_2S (Lauth), honey (Marpmann), milk (Rothenfusser; Schäffer; Storch; Tillmans), ultraviolet rays (Schall), & amyl alcohol (Wyss).

p-Phenylenediamine Nitrate

$C_6H_4(NH_2)_2 \cdot 2HNO_3 = 234.14$.—Wh. to yellowish leaflets.—SOL.: Eas. W.; sltly A., E.—USES: As of the hydrochloride.

m-Phenylenediamine Sulphate

$C_6H_4(NH_2)_2 \cdot H_2SO_4 = 206.19$.—Fr. *m*-dinitrobenzene by Sn & HCl.—Colorl. to reddish cryst.—SOL.: W., A.—USES: Photography; test f. Au (yellow to dark-brown color; violet in strong soluts.—Siemssen).

PHENYLETHANE—see Ethylbenzene

Phenylethanolamine Sulphate

Racemic α -Phenyl- β -aminoethanol Sulphate.—($C_6H_5 \cdot CHOH \cdot CH_2 \cdot NH_2$) $_2 \cdot H_2SO_4 = 372.35$.—Sulphate of a base obt. synthetically & related chemically to ephedrine & epinephrine.—ACTION & USES: As of ephedrine, but much weaker, when given intern. or subcut. in bronch. asthma, etc.; most efficient as local appl. (2% sol.) in hay fever.

PHENYLETHYL CARBAMATE—see Phenylurethane

PHENYLETHYL ETHER, or OXIDE—see Phenetol

PHENYLETHYLENE—see Styrene

PHENYLETHYLHYDANTOIN—see Nirvanol

PHENYLETHYLMALONYLUREA—see Luminal; Phenobarbital

Phenylglucosazone

$C_{18}H_{22}N_4O_4 = 358.30$.—Fr. phenylhydrazine hydrochloride & dextrose by heat.—Fine, yellow need.—SOL.: Hot A.; alm. insol. W.—MELT.: 204°–205° C.

PHENYLGLYCOLANTIPYRINE—see Tussol

PHENYLGLYCOLYL-METHYLVINYL-DIACETONALKALINE HYDROCHLORIDE—see Eucatropine

Phenylhydrazine Merck

$C_6H_5 \cdot NH \cdot NH_2 = 108.11$.—Fr. aniline, HCl, & $NaNO_2$, by $SnCl_2$ or $NaHSO_3$.—Yellowish to red-brown liq.; faint arom. odor; absorbs O fr. air & reddens.—SOL.: Eas. A., E., sltly in W.—SP. GR.: 1.091 at 15.5° C.—SOLIDIF. by cold, to plates melt'g at 16° C.—BOIL.: 241° C.—USES: Test for glucose, aldehydes, & ketones (phenylhydrazones formed).—CAUT.: Protect fr. light & air.

Phenylhydrazine Hydrochloride Merck

$C_6H_5N_2 \cdot HCl = 144.58$.—Silky leaflets.—SOL.: W., A.—MELT.: 240° C.—Salt most frequently used inst. of the base.—CAUT.: Handle w. care, as it may produce an eczematous eruption of the skin.

Phenylhydrazine Oxalate

$(C_6H_5N_2)_2 \cdot C_2H_2O_4 = 306.25$.—Reddish, cryst. powd.—SOL.: Eas. hot W.; diffic. cold W.; alm. insol. A., & E.

Phenyllactosazone

$C_{24}H_{32}N_4O_9 = 520.41$.—Fr. milk sugar, phenylhydrazine hydrochloride, & sod. acetate by heat.—Fine yellow need.—SOL.: 80–90 boil. W.—MELT.: Abt 200° C. w. decomp.

PHENYLMETHANE—see Toluene

PHENYLMETHYLAMINOPROPANOL—see Ephedrine

PHENYLMETHYLAMINOPROPANOL HYDROCHLORIDE—see Ephetonin

PHENYLMETHYLKETONE—see Hypnone

Phenylmethylpyrazolon

$CH_3 \cdot \overset{.}{C} : N \cdot C_6H_5 \cdot N \cdot CO \cdot CH_2 = 174.15$.—Fr. phenylhydrazine & ethyl acetoacetate by heat.—Wh., cryst. powd.—SOL.: Hot A.; alm. insol. cold W.—MELT.: 127° C.

PHENYLMUSTARD OIL—see Oil Phenylmustard

PHENYLONE—see Antipyrine

PHENYLQUINOLINE-CARBOXYLICACID-*o*-ANILIDOCARBOXYLIC ACID—see Artosin

PHENYLSMICARBAZIDE—see Cryogenine

PHENYLSULPHOCARBAMIDE—see Phenylthiocarbamide

PHENYLSULPHOUREA—see Phenylthiocarbamide

PHENYLTETRAMETHYLTIRAMIDO-ALPHANAPHTHYLDIPHENYLCARBINOL HYDROCHLORIDE—see Victoria Blue B

Phenylthiocarbamide

Phenylsulphourea; Phenylthiourea; Phenylsulphocarbamide.— $NH_2 \cdot CS \cdot NH(C_6H_5) = 152.18$.—Fr. aniline hydrochloride & NH_4SCN by heat.—Colorl., bitter need.—SOL.: A.; sltly in W.—MELT.: Abt 154° C.

PHENYLTHIOUREA—see Phenylthiocarbamide

PHENYLUREA—see Phenylcarbamide

Phenylurethane

Phenylethyl Carbamate; Carbanilic Ether, B. P. C.— $CO \cdot (NH \cdot C_6H_5) \cdot (OC_2H_5) = 165.14$.—Colorl., acid. cryst.—SOL.: Eas. A., E.; sltly in W.; hardly attacked by boil. f. a short time w. HCl or KOH.—MELT.: 50°–51° C.—BOIL.: 237°–239° C.—ACTION: Antipyr.; Analges.; Antirheum.; Antisept.—USES: *Intern.*, rheum., tubercul., headache, migraine, sciatica, neuralg., etc.—*Extern.*, inst. of iodoform in obstinate ulcers & chron. ophthalmia; in 10% oint. in foot sores; as dust. powd. in syphilitic & cutan. dis.—DOSE: *Antipyr.*, 0.5 Gm. (8 grn.), half this dose f. patients under 15 yrs. of age, & given in 2 portions at $\frac{1}{2}$ hr intervals; as *antirheumat.* & *antineuralg.*, 1–2 Gm. (15–30 grn.) p. day.

Phloretin

Phloretic Acid.— $(OH)_2C_6H_3O \cdot C_6H_4 \cdot CH \cdot (CH_3) \cdot COOH = 274.19$.—Fr. phloridzin by boil'g w. dil. H_2SO_4 .—Alm. wh. powd.—SOL.: Alkalies, A.—MELT.: Abt 253° C. w. decomp.—Acts physiologically like phloridzin.

Phloridzin Merck

Phlorizin; Phlorrhizin.— $C_{21}H_{24}O_{10} + 2H_2O = 472.23$.—Glucoside fr. root-bark of apple, pear, plum, & cherry trees.—Sm., light, wh., silky need.; sweet w. bitter after-taste.—SOL.: 4 A.; spar. cold, freely hot, W., spar. E., N.N.R., B.P.C.—MELT.: At 108° C., solidif. at 130° C., & then again melts at 170° C.—ACTION: Antipyr.; Tonic, Antiper.—USES: Remit. & inter-

mit. fever. Large doses produce severe glycosuria; also induces glycosuria in animals to which it is given. It is of value as a test of renal inadequacy; & to make the test, first assure absence of glucose fr. the urine, then inject subcut. 0.005 Gm. ($\frac{1}{12}$ grn.) phloridzin diss. in 1 cc. (15 M) 0.5% solut. Na_2CO_3 & just after the bladder has been emptied of urine. If kidneys adequate, glucose appears in urine in $\frac{1}{4}$ – $\frac{1}{2}$ hr.—*Techn.*, as depolarizer in electric batteries to prevent escape or liberation of gases.—**DOSE:** As antipyretic, 0.3–0.6 Gm. (5–10 grn.); even a dose of 0.2 Gm. (3 grn.) is capable of causing a diabetic condition, but no notable disturbances of health are to be feared, it has been stated.

PHLORIZIN—see Phloridzin

Phloroglucin Merck—Reagent

$\text{C}_6\text{H}_3(\text{OH})_3 + 2\text{H}_2\text{O} = 162.11$.—Wh. or yellowish cryst., or cryst. powd.; loses W. of cryst. at 100°C .—**SOL.:** Abt 95 W., 10 A., readily in E.—**MELT.:** Abt 218°C . when rapidly heated; 200° – 209°C . when slowly heated.

MAXIMUM OF IMPURITIES

Diresorcin. 0.000%

USES: Determ. pentoses & pentosans; chiefly w. vanillin as reagent. (Guenzburg's) f. free HCl in gastric juice; in reagent. f. aldehydes & acrolein (Barbet), lignin (Czapek; Valenta; Wiesner), organ. acids (Fenton), formaldehyde (Frieser; Judd; Nierenstein; Weber-Tollens), HCl (Guenzburg; Steensma), methyl A. (Haigh; Prescott), chloral hydrate (Jaworowski), volatile oils (Kobert), peach kernel oil (Kreis-Chwolle; Lewkowitsch), mineral acids (Nickel), turpentine oil (Leuchter), Cl in benzoic acid (Raikow), S (Raikow), pentoses (Salkowski), asafetida (Sechler), lignified cell tissue (Warnecke); also in microscopy.

Phloroglucin Merck

1,3,5-Trioxylbenzene (or -zol); Phloroglucinol.— $\text{C}_6\text{H}_3(\text{OH})_3[1:3:5] + 2\text{H}_2\text{O} = 162.11$.—Fr. resorcinol & NaOH by heat.—Wh. or yellowish cryst., free fr. diresorcinol.—**SOL.:** Abt 100 W.; A., E.—**MELT.:** When rapidly heated, at 217° – 219°C .; when slowly heated, at 200° – 209°C .—**ACTION:** Antisept.; Antipyr.; Tonic.—**USES:** As an excellent decalcifier of bone specimens, & partic. f. labyrinth, the solut. being made fr. 1 Gm. + 100 cc. dist. W. + 10 Gm. HCl + 200 Gm. 70% A.; the decalcification req. 30–40 days. A solut. phloroglucin in A. & HCl is also used as a test f. wood fiber in paper (a red color develops).

Phloroglucin-Vanillin

Mixt. phloroglucin w. vanillin.—**USES:** As Guenzburg's solution (*q.v.*).

Phloroglucin-Vanillin Paper

Guenzburg's Paper.—Paper impreg. w. a solut. 2 Gm. phloroglucin & 1 Gm. vanillin in 30 cc. alcohol, & then dried.—**USES:** Detect. free HCl in gastric juice (red color if free HCl present).

PHLOROGLUCIN-VANILLIN SOLUTION—see Guenzburg's Solution

PHLOROGLUCINOL—see Phloroglucin

Phlorol

Orthoethylphenol.— $\text{C}_6\text{H}_4(\text{OH})\text{C}_2\text{H}_5[1:2] = 122.12$.—Fr. barium phloretinate by dist'n; contained in beechwood tar.—**Color.** liq.; phenol odor.—**USES:** As methyl ester in artif. arnica-root oil.—**SOL.:** A., E.; sltly in W.—**BOIL.:** 207°C .

PHLORRHIZIN—see Phloridzin

Phorone

Diisopropylideneacetone; Paraoxyquinone.— $\text{CO}(\text{CH}:\text{C}(\text{CH}_3)_2)_2 = 138.16$.—Fr. acetone by CaO , or by HCl & alcohol. KOH.—Yellow prisms.—**Insol.** W.—**MELT.:** 28°C .—**BOIL.:** 196°C .

Phosgene Solution

Carbonyl, or Chlorformyl, Chloride Solution.— $\text{COCl}_2 = 98.92$.—Fr. Cl & CO by sunlight or by act. of carbon. Us'y mkt'd as 20% solution in benzene or toluene.—**Clear, colorl., fum. liq.;** suffoc. odor; vapors irrit. the eyes.—**USES:** Organ. syntheses.

PHOSPHO-LUTEIN—see Lecithin

Phosphonium Iodide

Iodophosphine.— $\text{PH}_4\text{I} = 161.99$.—Fr. HI gas by phosphine.—**Colorl.** to sltly yellowish cryst.; decomp. w. W.—**USES:** Chem.

PHOSPHORIC OXIDE—see (Acid) Phosphoric Anhydride

Phosphorus Merck—U.S.P. X—Yellow, Sticks

P = 31.04; non-metal. element disc. in 1669 by Brandt.—Yellowish, semi-transp. sticks; waxy luster when cut; luminous in dark on expos.—**SOL.:** Abt 400 absol. A., 31.5 B., abt 40 C., 102 absol. E., 0.9 CS_2 at 25°C ., spar. in oils, & pract. insol. in W., U.S.P.; 350 absol. A., 80 olive oil, 25 C., 80 E., 0.5 CS_2 , B.P.; 150 E., 60 olive oil, 60 oil turpent., melted fats, Sq.—**Sp. Gr.:** Abt 1.83 at 10°C ., U.S.P.—**MELT.:** Abt 44°C .—**ACTION:** Stim. to nerv. system.—**USES:** *Intern.*, mania, melancholia, sexual exhaust., cerebral softening, neural., rachitis, osteomalacia, osseous fractures, caries, promot. callus formation, & in var. skin dis. Gen'lly administered in elixir, oil, pill, or tinct.—*Extern.*, in oily solut. or oint. 1:50–100 in paralytic seizures.—*Techn.*, as catalyst, in gas analysis f. determ. O; manuf. matches, rat poison, various phosphorus salts, & phosphor-bronze f. ordnance, bearings, packings, screws, &c.—**DOSE:** *Adults*, 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.) 3 t.p.d. in solut. or pill, but never in substance; aver. dose, 0.0006 Gm. ($\frac{1}{100}$ grn.).—In epilepsy after sunstroke, 0.003 Gm. ($\frac{1}{20}$ grn.) 3 t.p.d.—*Children*, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) p.d. in chocolate pastilles, or as phosphorized cod-liver oil (0.01:100).—**ANTID.:** Emetics & stomach siphon, CuSO_4 ; gastric lavage followed by a 1:1000 solut. KMnO_4 , charcoal, lime-water. Oils or fatty matters must not be

given.—INCOMP.: S, I, oil of turpentine, KClO_3 , etc.—CAUT.: Inflammable! Keep under water.

do. Merck—Amorphous

Red, or Allotropic, Phosphorus.—Brown to red powd.; not spontaneously inflam. in air.—Insol. in ordinary solvents of P, & does not melt.—SP. GR.: 2.1 at 17° C.—USES: *Intern.*, arteriosclerosis.—*Techn.*, safety matches, & ignition surfaces f. Swedish safety matches.—Not poisonous.—DOSE: 0.06–0.12 Gm. (1–2 grn.) sev'l t.p.d.—CAUT.: Avoid contact w. KClO_3 , KMnO_4 , Na_2O_2 , & o. substcs eas. yielding up O; w. these explosions may result on contact.

PHOSPHORUS BROMIDE—see Phosphorus Tribromide; Phosphorus Pentabromide

PHOSPHORUS CHLORIDE—see Phosphorus Trichloride; Phosphorus Pentachloride

PHOSPHORUS IODIDE—see Phosphorus Triiodide

Phosphorus Oxychloride Merck

Phosphoryl Chloride.— $\text{POCl}_3 = 153.42$.—Strongly fum., clear, colorl., liq.; pung. odor.—SP. GR.: 1.686 at 15° C.—Solidif. at -10° C. to cryst. form.—BOIL.: 110° C.—USES: Solvent in cryoscopy; test f. urea (Fenton); chlorinating agent; catalyst in organ. synthesis; manuf. intermediates, dyes.

Phosphorus Pentabromide

Phosphoric Bromide or Perbromide.— $\text{PBr}_5 = 430.64$.—Yellow, cryst. mass.—Decomp. by W.—Decomp. at 100° C.—USES: Synthetic organ. chem.—CAUT.: Keep hermetically sealed.

Phosphorus Pentachloride Merck

Phosphoric Chloride or Perchloride.— $\text{PCl}_5 = 208.34$.—Fum., wh., cryst. mass; decomp. on contact w. air or W.—USES: Organ. chem. f. replacing hydroxyl groups by Cl, partic. f. convert'g acids into acid chlorides; test f. amines (Lemoult); catalyst in manuf. acetylcellulose.

Phosphorus Pentasulphide

Phosphoric Sulphide; Thiophosphoric Anhydride; Phosphorus Persulphide.— $\text{P}_2\text{S}_5 = 222.38$.—Light-yellow, cryst. masses; peculiar odor.—SOL.: CS_2 ; decomp. by W.—MELT.: 274°–276° C.—USES: Organ. Chem.—CAUT.: Keep in sealed vessels!

PHOSPHORUS PENTOXIDE—see (Acid) Phosphoric Anhydride

PHOSPHORUS PERBROMIDE—see Phosphorus Pentabromide

PHOSPHORUS PERCHLORIDE—see Phosphorus Pentachloride

PHOSPHORUS PERSULPHIDE—see Phosphorus Pentasulphide

Phosphorus Sesquisulphide

$\text{P}_4\text{S}_3 = 220.34$.—Yellow, cryst., inflamm. mass.—SOL.: CS_2 ; insol. cold, decomp'd by boil'g. W.—SP. GR.: 2.00.—MELT.: 172° C.—USES: Manuf. organ. comp'ds; matches.

PHOSPHORUS SULPHIDE—see Phosphorus Trisulphide; Phosphorus Pentasulphide

Phosphorus Tribromide Merck

Phosphorous Bromide.— $\text{PBr}_3 = 270.80$.—Colorl., fum. liq.; v. penetrating odor.—SP. GR.: 2.925 at 0° C.—BOIL.: 175° C.—Decomp. by W.—USES: Test f. O (Christomanos) & sugar (Fenton).

Phosphorus Trichloride Merck

Phosphorous Chloride.— $\text{PCl}_3 = 137.42$.—Clear, colorl., fum. liq.; quickly decomp. in moist air.—SP. GR.: 1.616 at 0° C.—MISC.: B., C., E., CS_2 .—BOIL.: 78° C.—USES: As chlorinating agent; manuf. intermediates; producing iridescent metallic deposits.

Phosphorus Triiodide

Phosphorous Iodide.— $\text{PI}_3 = 411.80$.—Red cryst.—MELT.: 61° C.—Decomp. by W.

Phosphorus Trisulphide

Phosphorous Sulphide; Thiophosphorus Anhydride.— $\text{P}_2\text{S}_3 = 158.26$, or, $\text{P}_4\text{S}_6 = 316.52$.—Grayish-yellow masses.—SOL.: CS_2 ; decomp. by W.—USES: Organ. chem.—CAUT.: Keep sealed.

PHOSPHORYL CHLORIDE—see Phosphorus Oxychloride

Phosphotal

Creosote Phosphite.—Reddish-yellow, oily liq.; faint creosote odor; pungent taste.—Abt 90.5% creosote.—SOL.: A., C., E., G., oils.—ACTION: Antituberc.; Anticachectic.—USES & DOSE: As of creosote; given in pills, wine, or elixir.

Photol

Monomethylparaminophenol Sulphate.— $(\text{C}_6\text{H}_4[\text{OH}]\text{NHCH}_3)_2\text{H}_2\text{SO}_4 = 344.31$.—Wh. cryst. powd.—SOL.: 20 cold, 6 boil., W.—MELT.: 250°–260° C. w. decomp.—USES: Photog. develop. x-ray, motion picture, & cinematograph, films, plates; lantern slides, developing-out papers; & dyeing hair & furs.

PHOTOPHOR—see Calcium Phosphide

PHRENOSIN—see Cerebrin

PTHALAMIDE, OR PHTHALDIAMIDE—see Phthalaldiamide

PTHALIC ANHYDRIDE—see (Acid) Phthalic Anhydride

o-PTHALIC-ACID DIETHYLESTER—see Ethyl Phthalate

Phthalide

Ortho-oxyethylbenzoic Acid Anhydride.— $\text{C}_6\text{H}_4\text{CO.O.CH}_2 = 134.09$.—Fr. phthalyl chloride, Zn, & HCl.—Yellowish-wh., cryst. powd.; cinnamon-like odor.—SOL.: Eas. A.; sltly W.—MELT.: 73° C.—BOIL.: 290° C.

Phthalimide

$\text{C}_6\text{H}_4(\text{CO})_2\text{NH} = 147.09$.—Fr. ammon. phthalate by heat.—Wh., cryst. powd.—SOL.: Causitic alkalies, acetic acid; alm. insol. B., C.; insol. hot W.—MELT.: 236°–238° C.—USES: Manuf. synthetic indigo, & intermediates.

PHTHALIN—see Phenolphthalin

Phthalyl Chloride

$\text{C}_6\text{H}_4\text{CO.O.CCl}_2 = 202.99$.—Fr. phthalic anhydride & PCl_5 by heat.—Oily, colorl. liq.—SOL.: E.—SP. GR.: 1.409 at 20° C.—BOIL.: 275° C. at 726 mm.

Phthalyldiamide

Phthaldiamide; Phthalamide.— $\text{C}_6\text{H}_4(\text{CO.NH}_2)_2 = 164.12$.—Fr. phthalimid or diethyl phthalate by NH_3 .—Wh., cryst. powd.—Insol. cold W., A., E.—MELT.: 219°–220° C.

PHYCITE—see Erythrol

Phyllosan

An active chlorophyll preparation, in tablets ea. cont'g 0.03 Gm. ($\frac{1}{2}$ grn.) activated chlorophyll w. natural pyrrrol bodies & 0.005 Gm. ($\frac{1}{12}$ grn.) iron pyrophosphate.—ACTION: Tonic; Hematinic; Roborant.—USES: Secondary anemias, chlorosis, wasting diseases, emaciation, lack of tone; improves the condition of the blood by increas'g the hemoglobin; does not stain the teeth or cause constipation. Its advantages over the iron preparations are that it is pleasanter to take, does not stain the teeth, upset the stomach, or constipate.—DOSE: 1–2 tabl. (in which form mktd) 3 t.p.d.

PHYSIC, INDIAN—see Apocynum

Physostigma—U.S.P. IX; B.P.C.

Calabar, or Ordeal, Bean; Chop, or Split, Nut.—Dried ripe seed of *Physostigma venenosum*, Balfour, Leguminosæ, yield'g not less than 0.15% alkaloids, U.S.P.—HABIT.: West Africa (near mouths of Niger & Old Calabar Rivers). Intro. into India & Brazil.—CONSTIT.: Physostigmine (eserine); physovenine; calabarine (?); eseridine (?); eseramine; geneserine; phytosterin.—ACTION: Myotic; Sialag.; Antineural.; Antispasm.; Sed.; Diaphor.; Motor Depressant; Purgat.; Antitetanic; Nerve Tonic.—USES: Tetanus, strychn. & atropine poisoning, neural, convuls., chron. bronch., muscul. atony of bowels, chron. constip.—A 1:15 glycerinic solut. of the alcohol. extr. is also used to cause myosis by instilling into the eye in atropine mydriasis.—DOSES: 0.06–0.2 Gm. (1–3 grn.); aver. dose, 0.1 Gm. ($\frac{1}{2}$ grn.).—Alcohol. extr., 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.); aver. dose, 0.008 Gm. ($\frac{1}{8}$ grn.); Max. D.: 0.03 Gm. ($\frac{1}{2}$ grn.) single, 0.05 Gm. ($\frac{3}{4}$ grn.) daily.—Tr. (1:10), 0.3–1.3 cc. (5–20 M); aver. dose, 1 cc. (15 M).—ANTID.: Evacuants, atropine, chloral hydrate, strychnine, stimulants, tannin, emetics, stomach siphon, electricity, artificial respiration.

Physostigmine Merck—Alkaloid

Eserine.— $\text{CH}_3\text{NH.CO.NH.C}_{13}\text{H}_{15}\text{N.OH} = 275.27$.—Alkaloid fr. seeds *Physostigma venenosum*, Balfour (Calabar Bean).—Colorl., v. hygrosc. cryst., readily changing to red, resin-like mass on expos. to air.—SOL.: Eas. A., B., C., E., fixed oils; sltly in W.—ACTION: Spinal depressant; Antitetanic; Peristaltic; Stim.; Laxat.; Analg.; Myotic.—USES: Us'y in form

of its salts, partic. salicylate & sulphate, in traumatic tetanus, tonic convulsions; strychnine, antimony, & atropine, poison'g; neural, constip., muscular rheum., phantom tumor, tympanites, chronic bronch., epilepsy, chorea, neurasthenia, & intest. paralysis following laparotomies; meteorism, typhoid, peritonitis, impotence.—DOSES: 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.) in pill or solut., sev'l t.p.d.; aver. dose 0.002 Gm. ($\frac{1}{30}$ grn.); children, 0.000025–0.00005 Gm. ($\frac{1}{2400}$ – $\frac{1}{1200}$ grn.) subcut.; in intest. paral., 0.001 Gm. ($\frac{1}{60}$ grn.) subcut.—MAX. D.: 0.003 Gm. ($\frac{1}{20}$ grn.).—APPL.: In 0.2%–0.5% solut. as eye drops in ophthalm. neonatorum, overcoming the mydriasis of atropine, breaking posterior adhesions in prolapsus of the iris, in operations f. cataract; in glaucoma to reduce intraocular tension; to relieve traumatic & residual accommodation paralysis following dipthh.; & in corneal ulcers, perforations, & wounds.—ANTID.: Emetics, stomach siphon, artif. respir., stimulants, chloral hydrate, & atropine subcut. (0.0005 Gm. [$\frac{1}{120}$ grn.] 3 t.p.d.).—In VETER. MED., usually as sulphate (q.v.).—CAUT.: Poison! Keep dry, & fr. light.

Physostigmine Benzoate

Eserine Benzoate.— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\text{C}_7\text{H}_6\text{O}_2 = 397.35$.—Hard, wh. cryst.—SOL.: W., A.; sltly in E.—USES, DOSES, &c.: As of physostigmine alkaloid.

Physostigmine Bisulphate

($\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$). $\text{H}_2\text{SO}_4 = 373.34$.—Wh., v. hygrosc. cryst. powd.—CAUT.: Keep dry & fr. light.

Physostigmine Borate

Eserine Borate.—Wh., cryst. powd.—SOL.: W.—ACTION: Myotic.—Solut. are said to be permanent & not to become irrit.—USES, DOSES, ANTID., &c.: As of physostigmine.—CAUT.: Keep dry, fr. light.

Physostigmine Citrate

Eserine Citrate.—($\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$). $\text{C}_6\text{H}_8\text{O}_7 = 1017.90$.—Wh., microcryst. powd.—SOL.: W., A.—CAUT.: Keep dry, fr. light.

Physostigmine Hydrobromide Merck

Eserine Hydrobromide.— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\text{HBr} = 356.20$.—Wh. cryst.—SOL.: W.—CAUT.: Keep dry & fr. light.

Physostigmine Hydrochloride Merck

Eserine Hydrochloride.— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\text{HCl} = 311.74$.—Wh. cryst.—SOL.: W.—CAUT.: Keep dry & fr. light.

PHYSOSTIGMINE-PILOCARPINE—see Eserine-Pilocarpine

Physostigmine Salicylate Merck—U.S.P. X

Eserine Salicylate.— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\text{C}_7\text{H}_6\text{O}_3 = 413.35$.—Colorl. or sltly yellowish, lustr. cryst.—SOL.: 75 W., 16 A., 6 C., 250 E., at 25° C., 16 W. at 80° C., & 5 boil. A., U.S.P.—Solut. easily redden on expos.—USES, DOSES, etc.: As of Physostigmine.—CAUT.: This salt is but little affected by light, but must be kept dry. Red solut.'s have lost power.

Physostigmine Sulphate Merck—U.S.P. VIII

Eserine Sulphate.—($C_{15}H_{21}N_3O_2$) $_2$.H $_2$ SO $_4$ = 648.61.—Wh. or sltly yellowish, v. deliq., bitter, microscrypt. powd. or scales; easily reddens on expos. to air & light.—SOL.: 1200 E. at 25° C., U.S.P. VIII; eas. W., A., B.P.—MELT.: 140° C., but softens at 130° C., B.P.C.—USES, DOSES, &c.: As of physostigmine alkaloid. Favorite w. veter. surgeons as lax. f. colic, & chron. gastric & intest. catarrh in horses in *subcut.* doses of 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) in 2–10 cc. (30–150 M) cold W.; in *cattle*, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.); *sheep & goats*, 0.01–0.03 Gm. ($\frac{1}{8}$ –½ grn.); *pigs*, 0.005–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{3}$ grn.); *dogs*, 0.0005–0.003 Gm. ($\frac{1}{120}$ – $\frac{1}{20}$ grn.)—*all subcut.*—CAUT.: Keep dry, fr. light.

do. Merck—Scales

iso-Physostigmine Sulphate

($C_{15}H_{21}N_3O_2$) $_2$.H $_2$ SO $_4$ = 648.61.—Salt of an alkaloid found w. physostigmine in *Physostigma venenosum* (Calabar bean).—Light-yellow powd.—SOL.: Eas. W.—MELT.: 200°–202° C.—ACTION: Myotic; Laxative.—USES: Veterin. medic., as of physostigmine, but more powerful than latter (0.00075 Gm. [$\frac{1}{80}$ grn.] isophysostigmine sulphate equals (0.001 Gm.) [$\frac{1}{80}$ grn.] physostigmine sulphate in effect).—DOSE: *Horses*, 0.05–0.075 Gm. ($\frac{3}{4}$ –1¼ grn.).—*Intraven.* in *cattle*, 0.04 Gm. ($\frac{2}{3}$ grn.).—CAUT.: Keep solut. in amber bots.

Physostigmine Sulphite

Eserine Sulphite.—($C_{15}H_{21}N_3O_2$) $_2$.H $_2$ SO $_3$ = 632.61.—Wh. powd.—SOL.: Eas. W., A.—USES, DOSES, &c.—As of physostigmine, but affords a solut. that is stated to remain colorl. f. a long time.

Physostigmine Tartrate

Eserine Tartrate.—($C_{15}H_{21}N_3O_2$) $_2$.C $_4$ H $_6$ O $_6$ = 700.60.—Colorl. to yellowish cryst.—SOL.: W.—USES, DOSES, &c.: As of physostigmine.

Phytin

Calcium & Magnesium Anhydromethylenediphosphate.—Wh., odorl. powd.—SOL.: W.—Abt 26% P.—ACTION: Nervine; Tonic; Restorative.—USES: Neurasthenia, anemia, rickets, & tuberc.—DOSE: 4 caps. of 0.25 Gm. (4 grn.) ea., in which form mktd, p.d.; childr., 1–2 caps. p.d.

Phytolacca—N.F. V; B.P.C.

Poke Root; Garget.—Dried root (berries also used tho. not official) of *Phytolacca Americana*, L., *Phytolaccaceæ*.—HABIT.: North America; natur. in southern Europe.—CONSTIT.: Resin (abt 1%); tannin; phytolaccin; sugar (abt 10%); phytolaccine (traces); phytolaccic acid; asparagin.—ACTION: Emet.; Purgat.; Alter.; Antifat.—USES: *Intern.*, chron. rheum., gout, mamillitis, obesity, tonsillitis, chorea, scrofula, syph., &c.—*Extern.*, as oint. in ulcers, psoria., tinea capitis, ecz., & to arrest flow of milk.—DOSE: *Root: Alterat.*, 0.06–0.3 Gm. (1–5 grn.), aver. dose 0.1 Gm. (1½ grn.); *emet.*, aver. dose 1 Gm. (15 grn.).—*Extr.*, 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.) *alterat.*, 0.2–0.36 Gm. (3–6 grn.) *emet.*

—Fl'dextr., 0.06–0.3 cc. (1–5 M) *alterat.*, 2 cc. (30 M) *emet.*—Tr. (1:10), 0.2–1 cc. (3–15 M).—*Berries*: Fl'dextr., 0.3–1 cc. (5–15 M) in skin dis. & syphil. affect., & as an antifat.

Phytolaccin

Resinoid fr. root *Phytolacca decandra*, L. (Poke Root).—SOL.: A.—ACTION: Emetic; Purg.; Narcot.; Alter.—USES: Chronic rheum., cancer, & syph.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

Phytosterin

C $_{26}$ H $_{44}$ O = 372.48.—The cholesterin of plants, us'y obt. fr. var. seeds (peas, beans, almonds, etc.) by extr'n w. acetone, E., etc.—Levoglyrate crystals.—SOL.: Organ. solvents; insol. W., alkalies.—MELT.: 132°–134° C.

Pichi

Lvs, branches, & wood of *Fabiana imbricata*, Ruiz & Pavon, *Solanaceæ*.—HABIT.: Chili; Peru.—CONSTIT.: Fabianine.—ACTION: Anticatar.; Diuret.; Cholag.—USES: Specific in cystitis & vesical catarrh; contraind. in albuminuria; also used in catarrhal inflam. of genito-urinary organs, renal & vesical calculi; gonorrh., nerv. irritab. of bladder, & prostatitis.—DOSES: 0.3–4 Gm. (5–60 grn.).—Alcoh. extr., 0.2–0.8 Gm. (3–12 grn.).—Fl'dextr., 1–4 cc. (15–60 M).

α-Picoline

Alphamethylpyridine; Alphapicoline.—(CH $_3$)C $_5$ H $_4$ N = 93.09.—Fr. bones or coal by dry dist'n.—Colorl. liq.—MISC.: W., A.—SP. GR.: 0.95 at 15° C.—BOIL.: 129° C.—ACTION: Nerve Sed.—USES: Lessen diseased heart's action.

β-Picoline

Betamethylpyridine. — C $_5$ H $_4$ N(CH $_3$) = 93.09.—Fr. coal tar, or fr. (NH $_4$) $_2$ HPO $_4$, G., & H $_2$ SO $_4$, by distil.—Colorl. liq.—MISC.: W. all proport.—SP. GR.: 0.961 at 15° C.—BOIL.: 143.5° C.

PICRASMIN—see Quassin

Picrorrhiza—B.P.

Dried rhizome *Picrorrhiza Kurroa*, Royle, *Scrophularineæ*.—HABIT.: Himalayas.—CONSTIT.: Picrorrhizin (glucoside).—ACTION: Bitter Ton.; Antiper.—DOSE: 0.6–1.3 Gm. (10–20 grn.); as *antiper.*, 3–4 Gm. (45–60 grn.).—Liq. Extr. (1:1), 1.3–4 cc. (20–60 M).—Tr. (1:8), 2–4 cc. (30–60 M).

Picrotoxin Merck

Cocculin.—C $_{45}$ H $_{50}$ O $_{19}$ = 894.63, B.P.C.—Neutral prin. fr. seed of *Anamirta paniculata*, *Colebrooke* (*Cocculus indicus*; *C. palmatus*).—Most probably a constantly uniform (but not in molec. proport.) conjointly-crystallizing mixt. of 54%–55% picrotoxinin, C $_{15}$ H $_{16}$ O $_6$ + H $_2$ O, & 45%–46% picrotin, C $_{15}$ H $_{18}$ O $_7$.—Colorl., v. bitter cryst.—SOL.: A., diffic. W.; 334 cold & 35 boil. W., 13.5 cold & 3 boil. A. (90%), 10 solut. KOH, amyl A., B., C., or

glac. acet. acid, B.P.C.—MELT.: Abt 200° C.—ACTION: Antihidr.; Nervine; Antispasm.—USES: Night sweats of phth.; hematemesis, vomit. after anesthesia by C. or E.; paral., epilepsy, chorea, flatulent dyspep., & dysmenor.; as stim. in collapse; also antid. to chloral hydrate & strophanthin.—DOSE: 0.0006–0.002 Gm. ($\frac{1}{100}$ – $\frac{1}{30}$ grn.) subcut. or per os. in 1:2000 aqu. solut.; to prevent vomit. after anesthesia, 1.3 cc. (20 M) of 0.2% solut. subcut.; childr. of 4 yrs, 0.3 cc. (5 M).—MAX. D.: 0.006 Gm. ($\frac{1}{10}$ grn.) single; 0.02 Gm. ($\frac{1}{2}$ grn.) p.d.—ANTID.: Emetics, stomach siphon, tannin, strychnine, chloral hydrate, & stimulants.—CAUT.: Poison!

PIGMENT BROWN—see Sudan Brown

PIG-WRACK—see Chondrus

PILL COPAIBA—see Copaiba Mass

Pilocarpidine Nitrate

$C_{10}H_{14}N_2O_2.HNO_3 = 257.19$.—Nitrate of alkaloid fr. lvs *Pilocarpus* species.—Wh. cryst.—SOL.: 2 W., A.—MELT.: 137° C.—Does not exhibit specific jaborandi effect even in 0.4 Gm. (7 grn.) doses.

Pilocarpine Merck

$C_5H_4N.C(CH_3).N(CH_3)_3.CO = 208.20$.—Alkaloid fr. lvs var. spec. of *Pilocarpus* (Jaborandi).—Colorl. to yellow, syrupy liq.—SOL.: Eas. W.; A., C.—ACTION: Sialogogue; Myotic; Diaph.; Diuret.; Galactagogue.—USES: *Intern.*, dropsy, coryza, laryngitis, dipth., croup, whoop-cough, bronch., asthmatic dyspnea, obesity, uremic convuls., rheum., scarlat., lead colic, diab., syph., prurigo, ecz., psoria., urticaria; acute artic. rheum.; croupous pneum. Expedites resolution in pneum.; promotes reabsorption of exudates in dropsy due to cardiac & renal dis.; hastens labor. Antid. to atropine. Contraindic. in heart failure & during fasting.—*Extern.*, in 1:2250 solut. grad. incr. to 1:450 solut. ev. 4 hrs in glaucoma to reduce intraocular tension; 1%–2% aqu. solut. f. eye as myotic (less irrit. to eye than physostigmine); in pomades & hair washes to promote growth of hair; subcut. in alopecia.—DOSE: 0.008–0.015 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.) subcut. or by mouth; children, under 2 yrs, 0.002 Gm. ($\frac{1}{30}$ grn.); infants, 0.001 Gm. ($\frac{1}{60}$ grn.).—MAX. D.: 0.02 Gm. ($\frac{1}{2}$ grn.) single; 0.04 Gm. ($\frac{1}{2}$ grn.) p.d.—NOTE: Toxic & lethal dose of pilocarpine & its salts is v. much smaller f. the negro than f. the white race.—VETER. MED., in founder, as lax. & stimulant of digestion, atonic gastrointest. catarrh, in tetanus, as antirheumatic, etc.; *cattle*, 0.2–0.75 Gm. (3–12 grn.); *horses*, 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.), & in tetanus 0.4 Gm. (7 grn.) w. 0.1 Gm. ($\frac{1}{2}$ grn.) physostigmine; *sheep & goats*, 0.01–0.05 Gm. ($\frac{1}{8}$ – $\frac{3}{4}$ grn.); *dogs*, 0.005–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{3}$ grn.).—ANTID.: Emetics, stomach siphon, atropine hypoderm. (0.0005–0.001 Gm. [$\frac{1}{120}$ – $\frac{1}{60}$ grn.]), tannin, (0.3 Gm. [5 grn.] ev. 15 min.), ammonia, brandy.—INCOMP.: $AgNO_3$, $HgCl_2$, $KMnO_4$, iodides, gold salts, alkalies, &c.—CAUT.: Poison! Keep well stoppered.

Pilocarpine Borate

Wh., deliq. lumps.—SOL.: W., A.—ACTION: Diaph.; Myotic; Sialag.—USES: Chronic iritis, glaucoma & o. eye dis.; also in renal affect.—DOSE: 0.008–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{3}$ grn.).

Pilocarpine Hydrobromide Merck

$C_{11}H_{16}N_2O_2.HBr = 289.13$.—Colorl. cryst.—SOL.: W., A.—USES, DOSES, &c.: As of pilocarpine.

Pilocarpine Hydrochloride Merck—U.S.P. X

Pilocarpine Muriate.— $C_{11}H_{16}N_2O_2.HCl = 244.67$.—Wh., sltly bitter, hygros. cryst.—SOL.: 0.3 W., 3 A., 366 C. at 25° C., in 1.5 A. at 60° C., & insol. E., U.S.P.—MELT.: 195°–198° C. (when dried) U.S.P.—ACTION, USES, DOSES, &c.: As of Pilocarpine (*q.v.*).—CAUT.: Keep well stoppered, & protect fr. light.

PILOCARPINE MURIATE—see Pilocarpine Hydrochloride

Pilocarpine Nitrate Merck—U.S.P. X

$C_{11}H_{16}N_2O_2.HNO_3 = 271.22$.—Wh. cryst., or cryst. powd.—SOL.: 4 W., 75 A., at 25° C., 21 A. at 60° C., & insol. C., E., U.S.P.—MELT.: 170°–173° C., U.S.P.; abt 176° C., B.P.—USES, DOSES, ANTID., &c.: As of pilocarpine (*q.v.*).

Pilocarpine Phenolate

$C_{11}H_{16}N_2O_2.OHC_6H_5 = 302.28$.—Oily liq.—SOL.: A., W.—USES: Tuberc. & malaria.—DOSE: *Subcut.*, 4 cc. (1 fl. dr.) of a 0.02% aqu. solut. to which 2.75% phenol is added; the inject. is made once daily, & the dose grad. incr. by 0.5 cc. (8 M) until the max. dose p.d. of 8 cc. (2 fl. dr.) is reached. In malaria, 3–6 cc. (45–90 M) of the above solut. subcut. daily; after a week, only ev. third day.

Pilocarpine Salicylate Merck

$C_{11}H_{16}N_2O_2.C_7H_6O_3 = 346.28$.—Wh. cryst.—SOL.: Eas. W., & less so in A.—MELT.: Abt 120° C.—USES & DOSES: As of pilocarpine alkaloid (*q.v.*).

Pilocarpine Sulphate Merck

$(C_{11}H_{16}N_2O_2)_2.H_2SO_4 = 514.47$.—Wh. cryst.—SOL.: W., A.—USES & DOSES: As of pilocarpine alkaloid (*q.v.*).

Pilocarpine Valerate

Pilocarpine Valerianate.— $C_{11}H_{16}N_2O_2.C_5H_{10}O_2 = 310.30$.—Wh. cryst.—SOL.: W., A.—USES, DOSES, &c.: As of pilocarpine.

PILOCARPINE VALERIANATE—see Pilocarpine Valerate

Pilocarpus—U.S.P. IX; B.P.C.

Jaborandi.—Leaflets of *P. Jaborandi*, Holmes (Pernambuco jaborandi), or of *P. microphyllus*, Stapf (Maranham jaborandi), Rutaceae, & yield'g not less than 0.6% alkaloids.—HABIT.: Brazil; Paraguay.—CONSTIT.: Volat. oil (abt 0.5%); jaborine; pilocarpine (abt 0.5%); pilocarpidine; isopilocarpine; jaboridine; jaboronine; jaboric acid; pilocarpic acid.—ACTION: Myotic; Sialag.; Diaphor.; Cardiac Depress.;

Emet.; Diur.; Galactag.—USES: Dropsy, pulmon. edema, pleurisy w. effus., inflam., chron. irritation, catarrh of muc. membranes, rheumat., & coryza.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose, 2 Gm. (30 grn.).—EXTR., 0.12–0.3 Gm. (2–5 grn.); as purgat., 0.3–0.6 Gm. (5–10 grn.).—FL'DEXTR., 0.6–2.6 cc. (10–40 M); aver. dose, 2 cc. (30 M).—TR. (1:5), 2–4 cc. (30–60 M).

Pimenta—N.F. V; B.P.C.

Allspice; Jamaica Pepper; Semen Amomi.—Dried, nearly ripe fruit of *Pimenta officinalis*, Lindley, Myrtaceæ.—HABIT.: East Indies; West Indies; Central & South America.—CONSTIT.: Volat. oil (3%–4.5%, B.P.C.); resin; tannin; fixed oil; sugar, gum.—ACTION: Stomachic; Stim.; Carminat.; Condiment.—USES: As of cloves.—DOSE: 0.3–2 Gm. (5–30 grn.); aver. dose, 1 Gm. (15 grn.).—FL'DEXTR., 0.6–2 cc. (10–30 M).

PIMPERNEL—see Pimpinella

Pimpinella—N.F. IV

Pimpernel; Burnet Saxifrage; Small Saxifrage.—Root of *Pimpinella Saxifraga*, L., or *P. magna*, L., Umbelliferæ.—HABIT.: Europe; advent. in U. S.—CONSTIT.: Volat. oil; resin; benzoic acid; pimpinellin.—ACTION: Diaph.; Diur.; Tonic; Stim.; Sialag.—USES: *Intern.*, in chron. catarrhs of muc. membr., amenor., dropsy, & angina.—*Extern.*, as mouthwash (1:20) f. toothache.—DOSE: 0.5–2 Gm. (8–30 grn.); aver. dose, 1 Gm. (15 grn.).—ALCOH. EXTR., 0.3–0.6 Gm. (5–10 grn.).—FL'DEXTR., 0.6–2 cc. (10–30 M).

Pinacolone

Methylpseudobutylketone.— $\text{CH}_3\text{CO.C(CH}_3)_3$ = 100.13.—Fr. pinacone & H_2SO_4 by dist'n.—Colorl. or yellowish liq.; pepperm. odor.—SOL.: A.; insol. W.—SP. GR.: 0.812–0.816 at 15° C.—BOIL.: 106° C.

Pinacone

Hexyleneglycol; Tetramethylethyleneglycol.— $(\text{CH}_3)_2\text{OHC.CO}:(\text{CH}_2)_2 = 118.14$.—Fr. acetone, K_2CO_3 , & Na by fract. dist'n.—Colorl. need.—SOL.: A., E.; sltly CS_2 & W.—MELT.: Abt 42° C.—BOIL.: 172° C.

PINANG—see Areca Nuts

PINE TULIP—see Chimaphila

Pinene—Dextrogyrate

d-Pinene; Australene; Laurene; so-called "Menthene."— $\text{C}_{10}\text{H}_{18} = 136.18$.—Constit. of many essent. oils. Chief constit. of oil of turpentine.—Colorl., transp. liq.—SOL.: A.; v. sltly W.—SP. GR.: 0.868 at 15° C.—BOIL.: 160° C.—CAUT.: Do not confound w. menthene obt. fr. menthol by dehydration.

do. —Levogyrate

l-Pinene; Terebentene.—Colorl. liq.—SOL.: A.; v. sltly W.—Chief constit. of French turpentine oil.

PINENE HYDROCHLORIDE—see Terpene Hydrochloride

PINGUIN—see Alantol

PINKROOT—see Spigelia

PIPERAZIDINE—see Piperazine

Piperazine—B.P.C.

Pyrazine Hexahydride; Diethylenediamine; Piperazidine; Hexahydropyrazine; Dispermin; Ethyleneimine.— $\text{NH}(\text{CH}_2)_2:(\text{CH}_2)_2\text{NH} = 86.12$.—Fr. $\text{C}_2\text{H}_4\text{Cl}_2$ & alcoh. NH_3 .—Colorl., transp., hygros. volat. cryst.; absorbs CO_2 fr. air.—SOL.: v. eas. W., G.; less sol. in A.—MELT.: 104° C.; 110° C. after drying over CaO .—BOIL.: 145° C.—ACTION: Antipodagric; Antirheum.; Diuret.—USES: Gout, lithiasis, & acute rheum.; uric-acid solvent.—DOSE: 0.3–1 Gm. (5–15 grn.); 1–2 Gm. (15–30 grn.) p.d.; *subcut.*, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.) single, & 0.3 Gm. (5 grn.) p.d.—For washing out the bladder, a 1%–2% solut.—INCOMP. Acetanilid, alkaloidal salts, nitrites, FeCl_3 , FeSO_4 , HgCl_2 , KMnO_4 , AgNO_3 , phenacetin, phenocoll hydrochlor., picric acid, quinine; solut. As & Hg iodide; sod. salicyl., spt. nitrous ether, tannin.—CAUT.: Keep well stoppered, protected fr. air & moisture.

PIPERAZINE QUINATE—see Sidonal

Piperidine Merck

Hexahydropyridine.— $\text{CH}_2(\text{CH}_2)_2:(\text{CH}_2)_2\text{NH} = 85.12$.—Fr. alcoh. extr. of pepper & KOH, by dist'n, or fr. piperine & soda-lime by heat.—Colorl. liq.; odor of pepper & ammonia; caustic taste.—SOL.: v. eas. W., & A.—SP. GR.: 0.866 at 15° C.—BOIL.: 108° C.—USES: In form of salts (*q.v.*).—*Chem.*, in tests f. chloral (Jona) & aldehyde (Lewin).

Piperidine Bitartrate

Piperidine Acid Tartrate; Piperidine Tartrate, B.P.C.— $\text{C}_5\text{H}_{10}\text{NH.C}_4\text{H}_6\text{O}_6 = 235.19$.—Colorl. cryst.—SOL.: Eas. W.—USES: To increase solub. of uric-acid & urates in the blood serum in uratic diathesis & gout.—DOSE: 0.6–1 Gm. (10–15 grn.) 3 t.p.d.

Piperidine Hydrochloride

$\text{C}_5\text{H}_{10}\text{NH.HCl} = 121.59$.—Wh. cryst.—SOL.: W., A.—MELT.: 237° C.

PIPERIDINE TARTRATE—see Piperidine Bitartrate

Piperine Merck—U.S.P. VIII

$\text{CH}_2\text{O}_2\text{C}_6\text{H}_3\text{CH:CH:CH:CH.CON.C}_5\text{H}_{10} = 285.25$.—Alkaloid fr. fruit *Piper nigrum*, L. (Black Pepper).—Colorl. or pale-yellow, monocl. prisms; tasteless at first, w. burning after-taste.—SOL.: 15 A., 1.7 C., 36 E., at 25° C., & 4.4 A. at 60° C., U.S.P. VIII.—MELT.: 130° C.—ACTION: Antipyr.; Antiper.; Stomachic.—USES: In feeble digestion; inst. of quinine in remit. & intermit. fevers, leucemia, splenic tumors, colic, diarrh., cholera, scarlatina, & dyspep.—*Techn.*, impart. a pungent taste to brandy.—DOSE: *Antipyr.*, 0.36–0.5 Gm. (6–8 grn.); *stomachic.*, 0.1–0.6 Gm. (1½–10 grn.) sev'l t.p.d.—CAUT.: Keep in the dark.

PIPERONAL

PIPERONYL ALDEHYDE } see Heliotropin

PIPERONYLPHLOROGLUCIDIMETHYL ESTER—see Protocotoin

PIPSISSEWA—see Chimaphila

PIRIA'S ACID—see Acid α -Naphthylaminesulphonic**Piscidia—B.P.C.**

Jamaica, or White, Dogwood.—Bark of *Piscidia Erythrina*, L. Papilionaceæ.—HABIT.: West Indies; Florida.—CONSTIT.: Piscidin; bitter glucoside; tannin; resin; fat; wax.—ACTION: Nar.; Hypn.; Anod.; Sed.; Alter.; Diur.—USES: Neural., toothache, dysmenor., whoop-cough, nerv. insomn.; also as fish poison.—DOSE: 0.3–4 Gm. (5–60 grn.).—Extr., 0.06–0.3 Gm. (1–5 grn.).—Liq. Extr., 2–8 cc. (30–120 M).

PISTACHIA GALLS—see Mastic

PISTACITE, or PISTAZIT—see Epidote

PITAYIN—see Quinidine

PITCH, JUDEAN, or MINERAL—see Asphalt

PITCHBLEND—see Uraninite

Pituglandol

Extract fr. infundibular portion of hypophyses.—USES: As of pituitrin (*q.v.*) in cardiac debility, acromegaly, climacteric disturbances, & as an oxytocic & post-partum uterine contractor.—DOSE: 1 cc. (15 M), subcut.—Mktd in ampuls cont'g ea. 1.1 cc.

Pituitary—Dried, Powd.

Hypophysis Cerebri.—Fr. pituitary glands of cattle; 1 part = abt 6.5 parts fresh organ.—USES: Uterine stimulant during labor; menorrhagia; metrorrhagia; Grave's dis., hay fever, rickets, tetanus, acromegaly; typhoid, purulent pleuritis, cerebrospinal mening.; uterine hemorrh.; obesity; shock; pulmonary hemorrh.; intest. paresis; asthma.—DOSE: 0.1–0.3 Gm. (1½–5 grn.) sev'l t.p.d.

do. —U.S.P. X

Dissiccated Hypophysis.—Posterior lobe of pituitary body of domesticated animals used f. food by man, & cleaned, dried, & powdered.—Yellowish or grayish, amorph. powd.; charact. odor.—SOL.: Partially in W.—USES: As of preced'g.—DOSE: 0.03–0.2 Gm. (½–3 grn.); aver. dose 0.03 Gm. (½ grn.).

Pituitol—Obstetrical

Extr. of posterior lobe of pituitary body of cattle; 1 part = approx. 3 parts Solut. Hypophysis U.S.P.; ea. cc. cont's 0.005 Gm. chlorbutanol as preservative.—DOSE: 0.3–1 cc. (5–15 M) subcut. or intramusc.

do. —Surgical

Extr. of posterior lobe of pituitary body of cattle; 1 part = approx. 6 parts Solut. Hypophysis U.S.P.; ea. cc. cont's 0.005 Gm. chlorbutanol as preservative.—DOSE: 0.3–1 cc. (5–15 M) subcut. or intramusc.

Pituitrin

Extr. fr. the infundibular portion of the pituitary body.—1 cc. pituitrin = 0.1 Gm. fresh gland, w. 0.005 Gm. chlorbutanol as preserv.—ACTION: Uterine, Vaso-, & Cardiac Tonic; Oxytocic.—USES: Post-partum & atonic uterine hemorrh.; acute anemia; shock; to hasten prolonged labor (use only in second stage, & be sure pelvis is normal); to increase intestinal peristalsis, to get rid of post-operative distention; in diabetes insipidus; also in hay fever & asthma.—DOSE: 1–2 cc. (15–30 M) in physiol. NaCl solut., intramusc. (inj. is said to be painless); in labor, 0.12–0.2 cc. (2–3 M) during labor; in hay fever & asthma, 1 cc. (15 M) w. 0.5 cc. (8 M) 1:1000 solut. adrenalin subcut. ev. o. day.

Pixalbol

"Purified, colorl. coal tar."—Thin, light-yellow, oily liq.—SOL.: 1:20 A. (90%); misc. absol. A., acetone, oils, petrolatum, & o. fats; insol. W.—ACTION: Dermic.—USES: Herpes, pruritus, hyperidrosis, eczem., & o. chron. & parasitic skin diseases.—APPL.: Pure; or in 10% solut. in alcoh., or mixed w. oils, or 5%–30% oints.—Does not stain skin or linen.—VETER. MED.: In eczema, itch, mastitis, etc., pure or with oils or as oint.

PIX LIQUIDA—see Tar, Pine

PIX LITHANTHRACIS—see Tar, Coal

PLANADALIN—see Carbromal

PLANT CASEIN—see Legumin

Plasmochin

Alkylamino-6-methoxyquinoline Compd.—Light yellow, alm. tasteless, gran. powd.—SOL.: Eas. A.; abt 330 W. at 20° C.—ACTION: Antimalarial.—USES: As of quinine in malaria, but claimed to be much more powerful.—DOSE: 0.02 Gm. (½ grn.) single, & 0.06 Gm. (1 grn.) p.d. in tertian & quartan fevers.

PLASTER OF PARIS—see Calcium Sulphate, Dried

PLATINIC AMMONIUM CHLORIDE—see Platinum & Ammonium Chloride

PLATINIC SAL-AMMONIAC—see Platinum & Ammonium Chloride, Platinic

PLATINOUS AMMONIUM CHLORIDE—see Platinum & Ammonium Chloride, Platinous

PLATINOUS SAL-AMMONIAC—see Platinum & Ammonium Chloride, Platinous

Platinum Merck—Sheets or Wire (Fine, Medium & Coarse)

Pt = 195.20.—Wh., mall., ductile metal; softer than silver; grayish tinge.—SOL.: Aqua regia.—SP. GR.: 21.41–21.43.—MELT.: 1755° C.—USES: Manuf. vessels & apparatus f. scientific, electrical, & electrochemical, purposes, chemical & industrial operations, alloys, coin, jewelry, &c. In wire form f. spirals & tissues f. increasing luminosity of various gases & pyrometers, & as lead-in wires f. incandesc. bulbs; in foil f.

platinoplatin copper, in electrolytic operations, autoigniters, thermocauteries; in dentistry, &c.

do. Merck—Black

Platinum Mohr.—Black powd.; metal-like & lustr. when rubbed.—Sp. Gr.: 15.8–17.6.—USES: As oxidizer in organic chemistry, as substitute f. CuO in elementary organic anal.; as catalyst in manuf. acetic acid, & H₂SO₄ by the "contact" method, &c.

do. Merck—Sponge

USES: Catalyzer in manuf. chemicals; auto-igniter in Döbereiner lamps & f. gas jets, &c.

do. Merck—Spongy

Porous, grayish-wh., friable mass.—USES: Döbereiner lamps, igniters for gas jets, &c.

Platinum Bichloride Merck

Platinous Chloride.—PtCl₂ = 266.12.—Grayish-green to brown powd.—SOL.: Hot HCl; insol. W.

Platinum Chloride Merck—Platinic, Dry

Platinum Hydrogen Chloride; Chloroplatinic Acid.—PtCl₄.2HCl + 6H₂O, or, H₂PtCl₆ + 6H₂O = 518.07.—Brownish-yellow, v. deliquescent. cryst. mass.—SOL.: Eas. W., A.—USES: *Intern.*, syph., scrofula, gonorrh., rheumat. dis., epilepsy.—*Extern.*, (by inj. of 0.5–1:150–200 W.) in gonorrh.; as compress or local applic. (5:100–150 W.); as oint. (0.6–1:30).—*Techn.* in galvano-platinoplatin, fotogr., platinum mirrors, platinum luster on glass & porcelain, platinized carbon f. acetic-acid manuf., platinizing pumice stone or asbestos (as catalyzer) in manuf. SO₃, indelible ink, relief etching of zinc. f. artistic & commercial purposes, fixing microscopic preparations, &c.

do. —5% & 10% Solutions

Platinum Chloride Ammoniated—Platinous

Platodiamine Chloride.—PtCl₂.2NH₃ = 300.18.—Green powd.—SOL.: NH₄OH; v. sltly W.

PLATINUM CHLORIDE, PLATINOUS—see Platinum Bichloride

Platinum Cyanide Merck—Platinous

Pt(CN)₂ = 247.23.—Yellow powd.—SOL.: In solut. KCN; insol. W.

PLATINUM DIIODIDE—see Platinum Iodide, Platinous

Platinum Iodide—Platinous

Platinum Diiodide.—PtI₂ = 449.04.—Heavy, black powd.—SOL.: Sltly in HI; insol. W. & alkalis.

PLATINUM MOHR—see Platinum Black

Platinum Nitrate—Platinic

Pt(NO₃)₄ = 443.23.—Brown powd., or black mass.—SOL.: W.

Platinum Ore

OCCUR.: So. America; U. S.; Brit. Columbia; Ural, Russia; Borneo; New Zealand.—COMPOS.:

Metal. Pt w. some Ir, Rh, Pd, Os, Fe, etc.—CRYST. SYST.: Reg.—LUSTER: Metallic.—COLOR & STREAK: Whitish steel-gray; shining.—HARDN.: 4–4.5.—SP. GR.: 14–19.—USES: Source of pure platinum & o. metals of the Pt group.

Platinum Sulphate—Platinic

Pt(SO₄)₂ = 387.32.—Greenish-black, deliq. mass.—SOL.: W.—USES: Micro-chemical investigations f. differentiating Cl, Br, & I.

Platinum & Ammonium Chloride—Platinic—Cryst.

Platinic Ammonium Chloride; Platinic Sal-ammoniac.—(NH₄)₂PtCl₆ = 444.04.—Orange-red cryst.—SOL.: Sltly W.; insol. A.—USES: See following.

do. —Dry, Powd.

Yellow powd.—SOL.: Sltly W.; insol. A.—Both salts used techn. in platinum plating & making spongy Pt.

Platinum & Ammonium Chloride—Platinous—Cryst.

Platinous Ammonium Chloride; Platinous Sal-ammoniac.—(NH₄)₂PtCl₄ = 373.12.—Dark-ruby-red cryst.—SOL.: W.

Platinum & Ammonium Cyanide

Ammonium Platinocyanide.—(NH₄)₂Pt(CN)₄ + H₂O = 353.35.—Yellow cryst.—SOL.: W.

Platinum & Barium Chloride

Barium Platinochloride.—PtBaCl₄ + 4H₂O = 546.47.—Orange-red cryst.—SOL.: Sltly W.

Platinum & Barium Cyanide Merck—Cryst.

Barium Platinocyanide.—PtBa(CN)₄ + 4H₂O = 508.69.—Large, dichroic cryst.; yellowish-green by transmitted, & bluish-violet by reflected, light.—SOL.: Abt 35 cold, eas. hot, W.—SP. GR.: 3.054 at 15° C.—An aqueous solut. mixed w. some adhesive, & painted on paper or wood exhibits luminescence when exposed to the invisible ultra-violet rays of the spectrum or to the Roentgen, radium or cathode, rays, hence the salt is used in radiography f. making X-ray screens.

Platinum & Calcium Chloride

Calcium Platinochloride.—PtCaCl₄ + 8H₂O = 521.24.—Orange-yellow cryst.—SOL.: W.

Platinum & Calcium Cyanide

Calcium Platinocyanide.—CaPt(CN)₄ + 5H₂O = 429.40.—Greenish-yellow cryst.; bluish fluoresc.—SOL.: W.

PLATINUM & HYDROGEN CHLORIDE—see Platinum Chloride, Platinic

Platinum & Iron Cyanide

Ferroplatinous Cyanide; Iron Platinocyanide. FePt(CN)₄ = 355.09.—Flesh colored powd.—Insol. W.

Platinum & Lead Cyanide

Lead Platinocyanide.—PbPt(CN)₄ = 506.45.—Yellowish wh. cryst. powd.

Platinum & Lithium Chloride

Lithium Platinichloride.— $\text{Li}_2\text{PtCl}_6 + 6\text{H}_2\text{O} = 529.94$.—Orange-yellow cryst.—SOL.: W., A.

Platinum & Lithium Cyanide

Lithium Platinocyanide. — $\text{Li}_2\text{Pt}(\text{CN})_4 + 5\text{H}_2\text{O} = 403.21$.—Greenish-yellow cryst.—SOL.: Sltly W.—USES: Photography w. Roentgen rays.

Platinum & Lithium & Rubidium Cyanide

$\text{LiRbPt}(\text{CN})_4 = 391.64$ + variable quant. aq.—Greenish-yellow, cryst. needles.—SOL.: W.—More strongly fluorescent in Roentgen rays than platinum & barium cyanide, hence used inst. of latter in Roentgen-ray experiments.

Platinum & Magnesium Cyanide

Magnesium Platinocyanide.— $\text{MgPt}(\text{CN})_4 + 7\text{H}_2\text{O} = 449.69$.—Large, red, dichroic prisms, the sides showing beetle-green & the ends blue or purple.—SOL.: W.

Platinum & Potassium Bromide

Potassium Bromoplatinate; Potassium Platinibromide.— $\text{PtBr}_4 \cdot 2\text{KBr} = 752.92$.—Brownish-red cryst.—SOL.: W.

Platinum & Potassium Chloride Merck—Platinic

Potassium Chloroplatinate, or Platinichloride.— $\text{PtCl}_4 \cdot 2\text{KCl} = 486.16$.—Sm., orange-yellow cryst., or yellow powd.—SOL.: Hot W.; alm. insol. A.

do. Merck—Platinous

Potassium Chloroplatinite or Platinochloride.— $\text{PtCl}_2 \cdot 2\text{KCl} = 415.24$.—Ruby-red cryst.—SOL.: W.—USES: Photography (in acid toning baths).

Platinum & Potassium Chlorocyanide

Potassium Chloroplatinicyanide.— $\text{K}_2\text{Pt}(\text{CN})_4\text{Cl}_2 + 2\text{H}_2\text{O} = 484.40$.—Large, rhomb., yellowish, v. efflorescent plates.—SOL.: W., A.—CAUT.: Keep fr. air.

Platinum & Potassium Cyanide

Potassium Platinocyanide. — $\text{PtK}_2(\text{CN})_4 + 3\text{H}_2\text{O} = 431.50$.—Alm. colorl., rhombic prisms; blue in direction of principal axis.—SOL.: Hot W.—USES: Analysis; test f. alkaloids (Delffs; Schwarzenbach).

Platinum & Potassium Iodide

Potassium Iodoplatinate, or Platinic Iodide.— $\text{PtK}_2\text{I}_6 = 1034.92$.—Black cryst.; graphite-like luster.—SOL.: W.—USES: Test f. alkaloids; nicotine, & coniine (Selmi).

Platinum & Potassium Sesquicyanide

Potassium Platinicyanide. — $\text{Pt}_2(\text{CN})_6 \cdot 4\text{KCN} + 6\text{H}_2\text{O} = 915.03$.—Cryst., w. coppery luster.—SOL.: W.

Platinum & Potassium Sulphocyanate

Potassium Sulphocyanoplatinate, or Platinithiocyanate.— $\text{K}_2\text{Pt}(\text{SCN})_6 = 621.84$.—Carmine-red cryst.—SOL.: W.—USES: Test f. cocaine, coniine, & nicotine (Guerschli).

Platinum & Potassium & Lithium Cyanide

Potassium & Lithium Platinocyanide.— $\text{LiKPt}(\text{CN})_4 + 3\text{H}_2\text{O} (?) = 399.34$.—Orange-red cryst.—SOL.: W.

Platinum & Potassium & Sodium Cyanide

Potassium & Sodium Platinocyanide.— $\text{NaKPt}(\text{CN})_4 + 3\text{H}_2\text{O} = 415.40$.—Orange cryst., w. bluish reflect.—SOL.: W.

Platinum & Sodium Chloride—Platinic

Sodium Platinichloride, or Chloroplatinate.— $\text{PtCl}_4 \cdot 2\text{NaCl} + 4\text{H}_2\text{O}$, or, $\text{PtNa}_2\text{Cl}_6 + 4\text{H}_2\text{O} = 526.02$.—Yellow powd.—SOL.: W., A.—USES, DOSES, &c.: As of platinum chloride (platinic), but is milder in action.

do. —Platinous

Sodium Platinochloride, or Chloroplatinite.— $\text{Na}_2\text{PtCl}_4 + 4\text{H}_2\text{O} = 455.10$.—Dark-red cryst.—SOL.: Eas. W.

Platinum & Sodium Cyanide

Sodium Platinocyanide.— $\text{Na}_2\text{Pt}(\text{CN})_4 + 3\text{H}_2\text{O} = 399.30$.—Colorl. cryst.—SOL.: W., A.

Platinum & Strontium Cyanide

Strontium Platinocyanide.— $\text{SrPt}(\text{CN})_4 + 5\text{H}_2\text{O} = 476.96$.—Wh. cryst., w. violet reflect.—SOL.: W.

Platinum & Thorium Cyanide

Thorium Platinocyanide.— $\text{ThPt}(\text{CN})_4 + 16\text{H}_2\text{O} = 819.66$.—Yellow cryst.—SOL.: W.—USES: As of platinum & barium cyanide f. fluorescent screens.

PLATODIAMINE CHLORIDE—see Platinum Chloride, Ammoniated

PLESSY'S GREEN—see Chromium Phosphate

PLEURISY ROOT—see Asclepias

Plugge's Solution—Test for Gum Ammoniac

Solut. 3 Gm. NaOH, 2 Gm. Br, & W. to 100 cc.—On shak'g solut. w. an alkaline, alcoh. extr. of ammoniac, a transitory violet color develops.

PLUMBAGO—see Graphite

PLUMBIC & PLUMBOUS SALTS—see under Lead

Plumierid

"Agoniadin."— $\text{C}_{21}\text{H}_{26}\text{O}_{12} + \text{H}_2\text{O} = 488.33 (?)$.—Cryst. glucoside fr. *Plumiera acutifolia*, Poir.—Wh., v. bitter, cryst. powd.—SOL.: W.—MELT.: Abt 15.5°C ., after previous sintering, & w. evol. of gas.

POCKWOOD—see Guaiac Wood

"PODOPHYLLIN"—see Resin Podophyllum

Podophyllotoxin Merck—(Not Resin Podophyllum, "Podophyllin")

$\text{C}_{15}\text{H}_{14}\text{O}_6 + 2\text{H}_2\text{O} = 326.20$.—Active prin. of "podophyllin."—Yellowish-wh., v. bitter powd.—SOL.: A.; part. E. & C.—ACTION: Drastic Cathartic.—USES: Purg. in obstinate & chron. constip.—DOSE: 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{8}$ grn.) in 1% alcoh. solut., relieves the constip. f. abt 1

week.—Subcut. inject. not advisable because painful.—Max. D.: 0.01 Gm. ($\frac{1}{8}$ grn.) p.d.

Podophyllum—U.S.P. X; B.P.

May Apple; Mandrake; Devil's Apple; Indian Apple; Vegetable Calomel.—Dried rhizome & roots of *Podophyllum peltatum*, L., Berberidaceæ.—HABIT.: North America.—CONSTIT.: Resin (not less than 3%, U.S.P.); podophyllotoxin (0.2%–1%, B.P.C.); picropodophyllin; quercetin; podophylloresin.—ACTION: Purgat. (in habitual constip.); Cholagogue; Alter.; Hydragogue Cathart.; Tonic.—USES: Hepat. congest., constip., rheum., scrofula, & bilious fevers.—DOSE: 0.3–1.3 Gm. (5–20 grn.).—Fl'dextr., 0.3–1.3 cc. (5–20 M); aver. dose, 0.5 cc. (8 M).—Resin, 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose, 0.01 Gm. ($\frac{1}{8}$ grn.).

do. Indian—B.P.

Rhizome & roots of *Podophyllum Emodi*, Wallich, Berberidaceæ.—HABIT.: Himalaya Mountains; Cashmere.—CONSTIT.: Podophyllotoxin (1%–4%, B.P.C.); berberin; podophylloresin (6%–12%).—USES: Drastic Purgat.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

Poirrier Blue C4B

Ammonium Triphenylrosanilinesulphonate.—Dark-blue powd.—SOL.: W., A.—TEST: *Sensitiveness*: To 45 cc. absol. A. in a 50-cc. glass-stop. bot. add 3–5 drops 0.2% aqu. solut. + 0.1*N* solut. KOH by drops, shak'g vigorously after ea. drop till blue color changed to red; then add 0.05 cc. 0.1*N* HCl—red color should change to blue; add further 0.05 cc. 0.1*N* KOH—red color should return.—PH = 11.0–13.0.—USES: 0.2% aqu. solut. as indic. in acidimetry; v. sensit. to acids, hence well adapted f. titrating weak bases (e.g. alkaloidal salts) as these in alcoholic solut. behave towards the indic. like the acids of the salts.

POIRRIER'S ORANGE 3 P—see Methyl Orange

POISON BLACK CHERRY—see Belladonna

POISON FLAG—see Iris

POISON HEMLOCK—see Conium Fruit

POISON IVY—see Rhus Toxicodendron

POISON NUT—see Nux Vomica

POISON OAK—see Rhus Toxicodendron

POISON PARSLEY—see Conium Fruit

POISON TOBACCO—see Hyoscyamus

POISON VINE—see Rhus Toxicodendron

POKE ROOT—see Phytolacca

Pole Reagent Paper

Unszied paper impregn. w. a solut. of 1–2 Gm. phenolphthalein in 10 cc. alcoh. & 110 cc. W., & then passed, while still wet, thro' a solut. of 20 Gm. Na₂SO₄ (cryst.) in 100 cc. W.; the paper is then dried.—USES: Recognizing the negative poles of batteries; the negative current colors the paper red (the ends of the wires are placed abt $\frac{1}{2}$ inch apart on the moistened paper).

POLISHING POWDER—see Tin Oxide, Gray

Pollantin—Liquid

Antitoxic serum of horses treated w. pollen toxin derived fr. ragweed, goldenrod, & o. plants.—Clear, sltly yellowish liq.; odor & taste of phenol.—USES: Hay fever.—APPL.: By instil. 1–2 drops into ea. eye, & insuffl. into nose.

do. —Powder

Obtd by evap. the serum in vacuo & then mix. w. steril. milk sugar.—USES: As preced.—NOTE: Powd. keeps better than the liquid.

POLYCHROME—see Esculin

POLYCHROMINE—see Primuline Yellow

Polygala

Bitter Milkwort; European Bitter Polygala.—Herb & root of *Polygala amara*, L., Polygalaceæ.—HABIT.: Europe.—CONSTIT.: *Herb*: Mucilage; resin.—*Root*: Bitter substage (polygalarin); volat. oil; polygalite.—ACTION: *Herb*: Expector. (in pulmonary phth.), Tonic, & Diaphor.—*Root*: Bitter Tonic (also used in tuberc.).—DOSE: *Herb*: 1–3 Gm. (15–45 grn.).—*Aqu. extr.*, 0.2–0.6 Gm. (3–10 grn.).—*Root*: 0.5–1 Gm. (8–15 grn.).

Polygonum

Water Smartweed; Water Pepper.—Herb of *Polygonum punctatum*, Elliot, Polygonaceæ.—HABIT.: British America; U. S.—ACTION: Diaphor.; Diuret.; Emmen.; Counter-Irrit.—USES: *Intern.*, in amenor., fevers, & dyspep. affect.—*Extern.*, in rheumat., gout, & neural.—DOSE: Fl'dextr., 1–2 cc. (15–30 M).

Polyhalite—Mineral

OCCUR.: Germany (Stassfurt & Ischl).—COMPOS.: (SO₄)₄Ca₂MgK₂·2H₂O.—COLOR: Flesh or brick-red.—USES: Source of Mg, Ca, K, & also sulphates.

Pomegranate—U.S.P. X

Dried bark of stem or root of *Punica Granatum*, L., Punicaceæ.—HABIT.: Mediterranean region; eastern, western, & southern Asia; cultiv. in subtropical countries.—CONSTIT.: Punicotannic acid; pelletierine (punicine); methylpelletierine; pseudopelletierine (granatone); isopelletierine; mannit; sugar; gum; (0.5%–1% total alkaloids, B.P.C.). Rind of fruit cont. tannin (28%, B.P.C.).—ACTION: Anthelmintic; Teniafuge; Astring.—USES: *Rind of Fruit*, as astring.; & techn. in dyeing.—*Root-bark*, in tape-worm, diar., night-sweats, & intermit. fevers.—DOSES: *Bark*, 1–4 Gm. (15–60 grn.); aver. dose, 2 Gm. (30 grn.), as 1:4 decoct.—*Alcoh. extr.*, 0.3–0.6 Gm. (5–10 grn.); as anthelm., 2–6 Gm. (30–90 grn.).—Fl'dextr., 1–4 cc. (15–60 M); as anthelm., 15–45 cc. (4–12 fl. dr.) in divided doses in 4 hours.—*Rind of Fruit*, 1–2 Gm. (15–30 grn.) in powd. or in decoction.

PONCEAU—see Biebrich Scarlet; Scarlet Red

Ponceau 3R

Sodium salt of cumeneazobetanaphtholdisulphonic acid.—Dark-red powd.—SOL.: W. w.

cherry-red color.—**USES:** Dyeing wool. When "certified," constitutes Food Color No. 56, S. & J. (Green), used f. coloring food products.

Ponceau Red R

Sodium Xylidinazobetanaphtholdisulphonate.—Brownish-red powd.—**SOL.:** W.—**USES:** Dyeing wool, & manuf. lakes.

Poppy Capsules—N.F. IV; B.P.C.

Poppy Heads.—Fully grown, dried, unripe capsules of *Papaver somniferum*, L., *Papaveraceæ*.—**HABIT.:** Europe; Asia.—**CONSTIT.:** *Capsules:* Opium bases (chiefly morphine) combined w. meconic acid; v. small quant. present, however, at all events not over 0.12% alkaloids or 0.03% (0.16%–0.28%, B.P.C.) morphine (in the seedless capsules).—*Seed:* Fixed oil; albuminoids.—**USES:** *Capsules:* Nar., Hypn.; Sed., inst. of opium.—*Extern.,* as cataplasm in sprains, bruises, &c.—*Seeds:* Pharmaceutically f. prepar. emulsions (5–15:100). Only the wh. seeds should be used for this purpose; the bluish-black seeds are used in baking.—**DOSE:** Aver., 4 Gm. (60 grn.), N.F.—Alcoh. extr., 0.06–0.3 Gm. (1–5 grn.); *Max. D.:* 0.5 Gm. (8 grn.) single, 2 Gm. (30 grn.) daily.—**Liq. Extr.** (45% poppy caps.) 2–4 cc. (30–60 M).

POPPY HEADS—see Poppy Capsules

Populin

Benzoylsalicin.— $C_{13}H_{17}(C_6H_5.CO)O_7 + 2H_2O = 426.31$.—Glucoside fr. bark & lvs of *Populus nigra* & *P. tremula*.—Wh. powd.; bitter, then sweetish, like licorice.—**SOL.:** Hot W., hot A., acetic acid, dil. min. acids; v. sltly cold W.—**MELT.:** 180° C. when anhydrous.—**ACTION:** Antipyretic.—**USES:** Fever.—**DOSE:** 0.12–0.25 Gm. (2–4 grn.) sev'l t.p.d.

PORCELAIN CLAY—see Kaolin

Porphyrene

$C_{21}H_{25}N_3O_2 = 351.33$.—Alkaloid fr. bark *Alstonia constricta*, F. Muell. (Australian fever bark).—Wh., amorph. powd.; acid solut's fluoresce blue.—**SOL.:** Hot W., A., C., E.—**MELT.:** 97° C.—**ACTION:** Antipyret.

Porphyry—Mineral

Quartz-Porphyry.—Igneous rock consist. of a dense matrix w. imbedded cryst. of feldspar, quartz, mica, etc.—**USES:** Monuments; ornamental building-stone.

POTASH, CAUSTIC } see Potassium Hydroxide
POTASSA }

POTASH, or POTASSA, LYE—see under Potassium Hydroxide

POTASSA-LIME, or POTASSA WITH LIME—see Potassium Hydroxide with Lime

Potassa Sulphurated Merck—U.S.P. X—Pure

Liver of Sulphur; so-called "Potassium Sulphide"; *Hepar Sulphuris*.—Fr. K_2CO_3 w. S. by fusion.—**Mixt.** potass. polysulphides & thiosulphate correspond'g to not less than

12.8% sulphide as S, U.S.P.; 42%–46% total S.—Yellowish-brown lumps; slt H_2S odor; decomp. on expos. to air.—**SOL.:** Eas. W. w. slt res., partly in A., U.S.P.; 2 W., B.P.C.—**ACTION:** Alter.; Emetic; Local Irritant.—**USES:** *Intern.,* small doses increase pulse frequency; large doses in rheum., gout, scrof., painters' colic, skin dis., catarrh, croup, & Pb & Hg poison.—*Extern.,* in parasitic skin dis. (sycosis, scabies, prurigo, etc.), rheum., & gout, in baths of 50–100 Gm. ($1\frac{3}{4}$ – $3\frac{1}{2}$ oz.) w. an equal wt of gelatin or glue (to prevent too irritant an action) to one bath.—**DOSE:** 0.05–0.5 Gm. ($\frac{3}{4}$ –8 grn.).—**VETER. MED.,** rarely *intern.* in metal poison'g, horses & cattle, 5–10 Gm. (75–150 grn.), sheep & pigs, 0.5–1 Gm. (8–15 grn.); dogs, 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.); *extern.* in skin parasites (acarus, lice, &c.), ecz., as 5%–10% wash & 0.5%–2% baths.—**ANTID.:** Emetics, stomach siphon, lead or zinc acetate, brandy.—**INCOMP.:** Acids, alcohol, carbonated waters, acid salts. Even CO_2 ppts sulphur fr. solut.—**CAUT.:** Avoid metal bath-tubs, metal spoons & W. w. much CO_2 ; keep in well stopp. bots.

do. Merck—Technical

USES: Producing color effects on brass, bronze, nickel, gun metal, etc.

POTASSIO-CUPRIC CHLORIDE—see Copper & Potassium Chloride

POTASSIO-CUPRIC FERROCYANIDE—see Copper & Potassium Ferrocyanide

POTASSIO-CUPRIC TARTRATE—see Copper & Potassium Tartrate

POTASSIO-CUPROUS CYANIDE—see Copper & Potassium Cyanide

Potassium Merck—Metallic

K = 39.10.—First isolated in metallic form by Davy in 1807.—Sm. balls, of consistence of wax; fresh cut surface has silvery luster, rapidly passing to bluish or grayish white.—**MELT.:** 62.5° C.—**SP. GR.:** 0.862 at 20° C.—**BOIL.:** 757.5° C.—**USES:** Chem.—**CAUT.:** Eas. oxidized, hence keep immersed in & covered w. B., benzoin, petroleum, or o. liquid free fr. oxygen.

Potassium Acetate Merck—C.P.

$KC_2H_3O_2 = 98.13$.—Colorl., lustr. deliquescent. cryst.—**SOL.:** Abt 0.5 W., abt 3 A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Aluminum (Al).....	0.000%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.005%

USES: Reag. f. tartaric acid (Vulpinus), & A. (Barbier; Bernouilly).

do. Merck—U.S.P. X

Wh., cryst., hygrosc. powd.; saline taste.—**SOL.:** 0.5 W., 2.9 A., at 25° C., & abt 0.2 boil. W.—**ACTION:** Diur.; Diaphor.; Aper.; Antipyr.;

Cath.—USES: Gout, lithiasis, rheum., pleurisy, dropsy, cystitis, fevers, to render urine alkaline; also in impetigo, lepra, ecz., & psoria; also urticarial rash follow'g diphth. antitoxin.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose, 1 Gm. (15 grn.).—VETER. MED., as diuret., *cattle*, 50–100 Gm. (12½–25 dr.); *horses*, 25–50 Gm. (6–12½ dr.); *sheep & pigs* 2–10 Gm. (30–150 grn.); *dogs*, 0.3–3 Gm. (5–45 grn.).—CAUT.: Keep well stoppered.

Potassium Acetotungstate

Potassium Acetowolframate.—Wh. cryst. powd.—SOL.: Eas. W.—USES: Photography, as a toning agent.

POTASSIUM ACETOWOLFRAMATE—see Potassium Acetotungstate

POTASSIUM ACID ARSENATE—see Potassium Arsenate

POTASSIUM ACID FLUORIDE—see Potassium Bifluoride

POTASSIUM ACID PHOSPHATE—see Potassium Phosphate, Monobasic

POTASSIUM ACID PHTHALATE—see Potassium Biphthalate

POTASSIUM ACID SULPHATE—see Potassium Bisulphate

POTASSIUM ACID SULPHATE, ANHYDROUS—see Potassium Pyrosulphate

POTASSIUM ACID TARTRATE—see Potassium Bitartrate

POTASSIUM ACID URATE—see Potassium Urate

POTASSIUM ALUM—see Aluminum & Potassium Sulphate

Potassium Aluminate

$K_2Al_2O_4 \cdot 3H_2O = 250.25$.—Fr. Al_2O_3 & KOH by fusion.—Hard, lustr. cryst.—SOL.: Eas. W.; insol. A.—USES: As mordant in dyeing & printing fabrics; manuf. lakes; sizing paper.

POTASSIUM o-AMINO BENZOATE—see Potassium Anthranilate

Potassium Amylsulphate

Potassium Isoamylsulphate.— $2KC_6H_{11}SO_4 + H_2O = 430.56$.—Wh. cryst. powd.—SOL.: Eas. W.; sltly A.

POTASSIUM ANHYDROSULPHATE—see Potassium Pyrosulphate

Potassium Anthranilate

Potassium Orthoaminobenzoate.— $C_6H_4NH_2 \cdot COOK = 175.19$.—Wh. to gray, cryst. powd.—SOL.: W.

Potassium Antimonate Merck

"Acid Potassium Pyroantimonate".— $K_2H_2Sb_2O_7 + 4H_2O = 504.68$.—Gran., wh. cryst. powd.—SOL.: Abt. 35 cold, more eas. boil'g, W.—USES: Test f. sodium salts.—CAUT.: Keep dry; is converted by moisture into gummy metantimonate which is unsuitable as a test f. Na.

do. Merck—Purified, Washed

Diaphoretic Antimony; "White Antimony

Oxide"; Cerussa Antimonii.—Mixt. potass. metantimonate w. metantimonic acid.—Wh. powd.—ACTION: Diaphoretic; Sedat.—USES: Hemor. of lungs, pneum., & puerperal fever.—DOSE: 0.5–1.5 Gm. (8–24 grn.).

Potassium Arsenate Merck—Monobasic—C.P.

Potassium Di- or Acid, Arsenate; Macquer's Salt.— $KH_2AsO_4 = 180.08$.—Colorl. cryst.—SOL.: W.

MAXIMUM OF IMPURITIES

Arsenite (As_2O_3)	0.024%
Chloride (Cl)	0.003%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.030%
Iron (Fe)	0.002%
Other Heavy Metals	0.001%

USES: Chem., test f. tannin (Procter), & for opium alkaloids (Rosenthaler-Türk).—*Medic.*, as antiperiodic, alter., & mild arsenical, in skin dis. & malaria.—DOSE: 0.003–0.006 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.).—MAX. D.: 0.006 Gm. ($\frac{1}{10}$ grn.), single; 0.02 Gm. ($\frac{1}{2}$ grn.), p.d.—ANTID.: As of arsenic trioxide.—CAUT.: Keep dry. Very poisonous!

do. Merck—Pure

Wh. to grayish, crumbly mass.—SOL.: W.—USES: *Techn.*, for fly-paper, in insecticides, preserving hides, & in calico printing.

Potassium Arsenite Merck—Pure

Potassium Metarsenite.—Somewhat variable compos'n; approx. $KAsO_2 = 146.06$.—Wh., hygrosc. powd.; grad. decomposes on expos. to air.—SOL.: W.—ACTION: Antiper.; Alterative.—USES: Skin dis.; malaria.—*Techn.*, as reducer of Ag in manuf. mirrors, & testing f. Ceylon cinnamon oil (Billon).—DOSE: 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.).—ANTID. & INCOMPAT.: As of arsenic trioxide.

do. Merck—Powd.

USES: *Techn.*, as of preced'g.

POTASSIUM AURIBROMIDE—see Gold & Potassium Bromide

POTASSIUM AURICHLORIDE—see Gold & Potassium Chloride

POTASSIUM AURICIODIDE—see Gold & Potassium Iodide

POTASSIUM AUROCYNIDE—see Gold & Potassium Cyanide

Potassium Benzenedisulphonate

$C_6H_4(SO_3K)_2 = 314.38$.—Colorl. cryst.—SOL.: W.

Potassium p-Benzenesulphonicacid-azobenzyl-aniline

$C_6H_5 \cdot CH_2 \cdot NH \cdot C_6H_4 \cdot N : N \cdot C_6H_4 \cdot SO_3K = 405.41$.—Orange red, cryst. powd.—SOL.: Eas. hot W.—USES: As indic. in 0.01% aqu. solut., 3–6 drops solut. being added to 10 cc. liquid; PH = red 1.9–3.3 yellow.

Potassium Benzoate Merck

$C_6H_5.COOK + 3H_2O = 214.23$.—Wh., cryst. powd.—SOL.: A.; eas. W.; 1.5 W., 18 A. (90%), B.P.C.—ACTION & USES: As of sod. benzoate.—DOSE: 0.3–1.3 Gm. (5–20 grn.).—CAUT.: Keep fr. air.

do. —Fr. Benzoic Acid fr. Benzoin

May have a slt benzoin-like odor; otherwise properties & uses as of the preced'g.

Potassium Baborate

Potassium Borate, or Tetraborate or Pyroborate.— $K_2B_4O_7 + 5H_2O = 323.88$.—Wh. cryst. powd.—SOL.: W.

Potassium Bicarbonate Merck—Reagent

$KHCO_3 = 100.11$.—Colorl., transpar. cryst.—SOL.: Abt 4 W. (solut. sltly alkal. to litmus); alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.001%
Sulphate (SO_3).....	0.003%
Calcium (Ca).....	0.001%
Silica & Alumina (SiO_2 & Al_2O_3).....	0.005%
Phosphate (P_2O_5).....	0.001%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Neutralizing agent, espec. preced'g titrations w. I soluts.; source of CO_2 in N determinations; separ'n of alkaloids.

Potassium Bicarbonate Merck—C.P.—Cryst. or Powd.

Acid Potassium Carbonate.— $KHCO_3 = 100.11$.—Colorl., transpar. cryst., or wh. powd.; sltly alkal. taste.—SOL.: Abt 4 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Phosphate (P_2O_5).....	0.002%
Silica & Alumina (SiO_2 & Al_2O_3).....	0.020%
Sulphate (SO_3).....	0.010%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

SOL.: 2.8 W. at 25° C., 2 W. at 50° C., & alm. insol. A.—ACTION: Diur.; Antilithic; Antacid.—USES: Dyspep., dropsy, lithiasis, sour stom., jaund., &c. Us'y taken effervesc. w. tartaric or citric acid.—TECHN., in baking powder., effervescent salts, and as source of CO_2 .—DOSE: 0.6–2 Gm. (10–30 grn.); aver. dose, 1 Gm. (15 grn.); up to 4 Gm. (60 grn.) p. day.

do. Merck—U.S.P. X—Refined, Gran.

SOL. & USES: As of preceding.

POTASSIUM BICHROMATE—see Potassium Dichromate

Potassium Bifluoride Merck

Acid Potassium Fluoride.— $KF.HF = 78.11$.—Colorl. cryst.—SOL.: W.—USES: Etching glass.

Potassium Binoxalate Merck—C.P.—Cryst.

Acid Potassium Oxalate.— $KHC_2O_4 = 128.11$.

—Wh., or colorl., monoclin. prisms.—SOL.: 40 cold, 6 boil., W.; sltly A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.015%
Iron (Fe).....	0.003%
Other Heavy Metals.....	Trace

USES: Standardizing soluts. of alkalies & $KMnO_4$; photography.

do. Merck—Cryst. or Powd.

Salt of Lemon, or Sorrel; Sal Acetosella.—USES: Intern., enteritis, puerperal metritis.—TECHN., removing ink stains, scour, metals, clean. wood, & in photo.; as mordant in dyeing; bleaching stearin; solvent of Prussian blue.—DOSE: 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).—MAX. D.: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.—ANTID.: Magnesia, lime-water.

POTASSIUM BIPHOSPHATE—see Potassium Phosphate, Monobasic

Potassium Biphthalate Merck—Reagent—Cryst.

Potassium Acid Phthalate.— $KHC_8H_4O_4 = 204.18$.—Colorl., odorl. cryst.; acid reaction.—SOL.: 10 W. at 25° C., 3 boil. W.

MAXIMUM OF IMPURITIES

Chlorine Comp'ds (Cl).....	0.003%
Sulphur Comp'ds (S).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Readily Carboniz. Substcs....	None
Moisture.....	0.100%

USES: Standard f. prepar'g volumetric alkali soluts; also as buffer in PH determ.

Potassium Bisulphate Merck—Reagent—Fused

Potassium Acid Sulphate.— $KHSO_4 = 136.17$.—Colorl. cryst.—SOL.: 3 W. (acid to litmus).

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.003%
Phosphate (P_2O_5).....	0.001%
Aluminum & Iron (as Al_2O_3 & Fe_2O_3).....	0.015%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.005%
Heavy Metals.....	0.000%
Magnesium (Mg).....	0.005%

USES: As flux in analysis of ores & siliceous comp'ds; determ'g radium; detect'g glycerin; reag. f. artif. wine coloring (Arata), HNO_3 (Pisani), & borax (Turner).

Potassium Bisulphate Merck—C.P.—Cryst.

Potassium Acid Sulphate; Potassium Hydrogen Sulphate.— $KHSO_4 = 136.17$.—Colorl. cryst.—SOL.: 3 W.—MELT.: Abt 200° C.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.003%
Aluminum (Al).....	0.003%
Arsenic (As).....	0.000%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

Potassium Bisulphate Merck—C.P.—Fused

$\text{KHSO}_4 = 136.17$.—Wh., transluc., deliquescent plates.—SOL.: W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.004%
Nitrate (N_2O_5).....	0.005%
Arsenic (As).....	0.000%
Heavy Metals.....	0.000%

do. Merck—Gran.

Sal Enixum.—SOL.: Eas. (abt 3) W.—ACTION: Aper.; Tonic.—USES: *Intern.*, constip. w. weak appetite.—*Extern.*, w. acetates f. smelling salts.—DOSE: 2–4 Gm. (30–60 grn.) w. equal wt. NaHCO_3 .

Potassium Bisulphite Merck

Acid Potassium Sulphite.— $\text{KHSO}_3 = 120.17$.—Wh. powd.; SO_2 odor.—SOL.: Eas. W.; insol. A.—ACTION: Antisep.; Antifermentative.—USES: *Intern.*, sore mouth, diphth., yeasty vomiting.—DOSE: 0.3–2 Gm. (5–30 grn.).

POTASSIUM BISULPHITE, META—see Potassium Metabisulphite

Potassium Bitartrate Merck—C.P.—Cryst. or Powd.

Potassium Acid Tartrate; Cream of Tartar.— $\text{KHC}_4\text{H}_4\text{O}_6 = 188.16$.—Colorl., cryst., or wh. powd.; pleas., acid. taste.—SOL.: Abt 200 cold, abt 20 boil. W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Phosphate (P_2O_5).....	0.003%
Sulphate (SO_3).....	0.020%
Ammonium Comp'ds (NH_3)...	0.090%
Calcium (Ca).....	0.030%
Lead (Pb).....	0.002%
Substcs Insol. in NH_4OH	0.000%

USES: Standardizing volumetric soluts. of alkalies; reag. f. glucose (Frommherz).

do. Merck—U.S.P. X—Cryst. or Powd.

DESCRIPTION.: As preceding.—SOL.: 155 W., 8820 A., at 25° C., & 16 boil. W., U.S.P.; also sol. in solut. of borax or boric acid.—ACTION: Cath.; Diur.; Aper.—USES: Dropsy, hemorrhoids, liver dis., & as refrigerant drink in febrile affect.—*Techn.*, largely used in baking powders; also coloring metals, galvanic tinning of metals, & as reducer of CrO_3 in mordants f. wool.—DOSE: 1–2.6 Gm. (15–40 grn.) sev'l t.p.d.; as *diuret.*, 2 Gm. (30 grn.); & as *laxat.*, 2–8 Gm. (30–120 grn.); aver. dose, 2 Gm. (30 grn.).—In VETER. MED., horses, 15–50 Gm. (4–13 dr.); sheep & goats, 10–40 Gm. (2½–10 dr.); pigs, 4–10 Gm. (1–2½ dr.); dogs, 1–3 Gm. (15–45 grn.); cats, 0.5–1 Gm. (8–15 grn.).

POTASSIUM BORATE—see Potassium Baborate

Potassium Borotartrate Merck

Soluble Cream of Tartar; Borated Cream of Tartar; Potassium & Sodium Borotartrate.—Fr. solut. 2 borax & 5 potass. bitartrate by evap.—Wh., cryst. powd.—SOL.: Eas. W.—ACTION: Cath.; Diur.; Lax.; Antisep.—USES: Constip. & diar. due to ferment. changes in

intest.; partic. in urinary calculi & gravel.—*Techn.*, Photo. as retarder f. alkaline developers.—DOSE: *Diur.*, 0.5–2 Gm. (8–30 grn.); *mild lax.*, 5–8 Gm. (75–120 grn.) 3–4 t.p.d.

Potassium Bromate Merck—Reagent

$\text{KBrO}_3 = 167.02$.—Wh. cryst. or cryst. powd.—SOL.: Abt 15 W.; v. sltly in A.

MAXIMUM OF IMPURITIES

Free Acid or Alkali.....	None
Bromide (Br).....	0.025%
Nitrate (N_2O_5).....	0.003%
Sulphate (SO_3).....	0.004%
Calcium (Ca).....	0.002%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%
Sodium (Na).....	Abt 0.03%

USES: Oxidizer, spec. in determ. phenol, SO_2 , H_2SO_3 , H_2S , & $\text{H}_2\text{C}_2\text{O}_4$; standard in iodometry; constit. of Koppeschaar's Br solut.; reag. f. Mn (Vitali) & quinine (Vondrasek).

Potassium Bromate Merck—C.P.

$\text{KBrO}_3 = 167.02$.—Wh. cryst. or cryst. powd.—SOL.: Abt 15 cold, abt 2 boil'g. W., (solut. neutral to litmus paper); sltly A.

MAXIMUM OF IMPURITIES

Bromide (Br).....	0.050%
Nitrate (N_2O_5).....	0.010%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

Potassium Bromide Merck—Reagent

$\text{KBr} = 119.02$.—Colorl. or wh. cryst. or granules.—SOL.: Abt 2 W., abt 200 A.

MAXIMUM OF IMPURITIES

Bromate (Br_2O_5).....	0.001%
Chloride (Cl).....	0.400%
Free Alkali (K_2CO_3).....	0.018%
Iodide (I).....	0.000%
Nitrate (N_2O_5).....	0.003%
Sulphate (SO_3).....	0.004%
Barium (Ba).....	0.002%
Calcium & Magnesium (Ca, Mg).....	0.010%
Iron (Fe) & o. Heavy Metals..	0.000%

USES: Determ'g urea & phenol; reag. f. urea (Clarens), & Cu (Denigès).

Potassium Bromide Merck—C.P.

$\text{KBr} = 119.02$.—Colorl. cryst. or wh. granules.—SOL.: Abt 2 W.; abt 200 A.

MAXIMUM OF IMPURITIES

Bromate (Br_2O_5).....	0.002%
Chloride (Cl).....	0.600%
Free Alkali (K_2CO_3).....	0.069%
Iodide (I).....	0.010%
Sulphate (SO_3).....	0.020%
Barium (Ba).....	0.004%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

Potassium Bromide Merck—U.S.P. X—Cryst., Gran., or Powd.

Wh., gran. powd., or medium-sized cryst.; pung., saline taste.—**SOL.**: 1.5 W., abt 250 A., & 4.6 G. at 25° C., 1 boil. W., & abt 21 boil. A., U.S.P.; (2 W., 200 A. [90%], B.P.); also G.—**ACTION**: Antiepileptic; Sed.; Hypn.—**USES**: Epilepsy, chorea, neurasth., convuls., nervous insom., delir. trem., tetanus, syph., scrof., semi-impotence, nymphomania, satyriasis, urethral fever, & poisoning by iodoform or strychnine.—**Techn.**, manuf. photo. plates & papers; process engraving.—**DOSE**: 0.6–4 Gm. (10–60 grn.), in solut.; aver. dose, 1 Gm. (15 grn.). In tetanus, or strychnine poison., up to 15 Gm. (4 dr.).—**VETER. MED.**: *horses & cattle*, 20–50 Gm. (5–12½ dr.) single, 100 Gm. (25 dr.) p.d.; *dogs*, 0.25–2 Gm. (4–30 grn.) single, 2–5 Gm. (30–75 grn.) p.d.; *sheep & pigs*, 2–5 Gm. (30–75 grn.) single, 10 Gm. (150 grn.) p.d.; *cats*, 0.25–0.5 Gm. (4–8 grn.) single, 1 Gm. (15 grn.) p.d.; *fowl*, 0.1–0.2 Gm. (1½–3 grn.).—**INCOMPAT.**: Acids, alkaloids; salts of Sb, Bi, Cu, Pb, Hg, & Ag.

do. —Effervescent—N.F. IV

Fr. 16.6 KBr, 53 NaHCO₃, 20.4 tartaric acid, & 25 citric acid.—Wh., gran. powd.; effervesc. w. W.—**USES**: Sed., & pleasant drink in headache.—**DOSE**: 4–8 Gm. (60–120 grn.); aver. dose, 6 Gm. (90 grn.).

do. —Effervescent, Compound—N.F. V

Fr. 0.8 caffeine, 8.3 KBr, 4.2 Li₂CO₃, 58.7 NaHCO₃, 18 tartaric acid, & 25 citric acid.—Wh., gran. powd.; effervesc. w. W.—**Sed.**—**USES**: Headache, insom., nervousn.—**DOSE**: Aver., 6 Gm. (90 grn.).

POTASSIUM BROMOPLATINATE—see Platinum & Potassium Bromide

Potassium Cacodylate

K(CH₃)₂AsO₂ + H₂O = 194.12.—Wh. cryst.—**SOL.**: W.; sltly A.—**USES & DOSES**: As of Sodium Cacodylate.

Potassium Camphorate

C₈H₁₄(COOK)₂ = 276.36.—Wh. or sltly yellowish, deliques., cryst. powd.—**SOL.**: Eas. W.—**ACTION**: Antisep.—**USES**: Night sweats of phth., bronch., cyst., pyelitis, gonorr., sore throat, ulc. mouth, &c.—**DOSE**: 0.6–2 Gm. (10–30 grn.).—**CAUT.**: Keep dry & fr. air.

Potassium Cantharidate

K₂C₁₀H₁₂O₅ + H₂O = 308.36.—Wh. powd.—**SOL.**: W.—**USES**: Subcut., in pulmon. & laryngeal tuberculosis, lupus, skin dis. (psoriasis, leprosy, etc.).—**DOSE**: *Subcut.*, at first 0.3 cc. (5 M) of an aqu. solut. 0.316:1000, the dose being incr. by 0.1 cc. (1½ M) grad. up to 1 cc. (15 M). The injections must not be made on consecutive days. 0.316 Gm. (5½ grn.) potass. cantharidate = 0.2 Gm. (3 grn.) cantharidin.

POTASSIUM CARBOLATE—see Potassium Phenate

Potassium Carbonate Merck—Reagent

K₂CO₃ = 138.21.—Wh., gran., deliques. powd.—**SOL.**: Abt 1 W.; pract. insol. A.

MAXIMUM OF IMPURITIES

Moisture.....	1.000%
Chloride (Cl).....	0.003%
Cyanide (CN).....	0.000%
Nitrogen Compd's (NH ₃ , N ₂ O ₅ as N).....	0.001%
Phosphate (P ₂ O ₅).....	0.003%
Silicate (SiO ₂).....	0.000%
Sulphate (SO ₃).....	0.003%
Sulphide (S).....	0.003%
Sulphite (SO ₂).....	0.008%
Aluminum (Al).....	0.010%
Arsenic (As).....	0.0003%
Calcium & Magnesium (Ca, Mg).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Sodium (Na).....	Abt 0.03%

USES: Neutralizer; constituent of fluxes f. decomposing silicates & insol. sulphates, etc.; prepar'g K salts; dehydrating agent.

Potassium Carbonate Merck—C.P.—Gran. (Calced)

K₂CO₃ = 138.21.—Wh., deliques., gran.—**SOL.**: Abt 1 W., pract. insol. A.

MAXIMUM OF IMPURITIES

Moisture.....	5.000%
Chloride (Cl).....	0.005%
N Comp'ds (NH ₃ , N ₂ O ₅ as N).....	0.002%
Phosphate (P ₂ O ₅).....	0.003%
Sulphate (SO ₃).....	0.020%
Arsenic (As).....	0.0005%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Gran. or Powd.

Deliq., gran. or wh. powd.—**SOL.**: 0.9 W. at 25° C., 0.7 boil. W., & insol. A.—**ACTION**: Antacid; **Solv.**—**USES**: *Intern.*, acid stom., acute rheum., gout, lithiasis, dropsy, jaundice.—*Extern.*, as 15% oint., or 1% aqu. solut. as bath in cutan. affect.—**DOSE**: 0.1–1.3 Gm. (1½–20 grn.) sev'l t.p.d.; aver. dose, 0.25 Gm. (4 grn.).

do. Merck—Technical—Dried Powd.

Salts of Tartar; Pearlash.—Wh., deliq., gran. powd.—**SOL.**: Abt 1 cold or boil'g W., insol. A.—**USES**: Chiefly *techn.*, in dyeing & bleaching; manuf. soap, glass, pottery, smalts, oxalic acid, KCN, K₄Fe(CN)₆, K salts & explosives; in process engraving & lithography, tanning & finishing leather, & in fertilizers.

Potassium Chlorate Merck—Reagent

KClO₃ = 122.56.—Colorl., lustr. cryst. or granules.—**SOL.**: Abt 17 W.; alm. insol. A., E.

MAXIMUM OF IMPURITIES

Bromate (Br ₂ O ₃).....	0.020%
Chloride (Cl).....	0.001%
Nitrate (N ₂ O ₅).....	0.001%
Sulphate (SO ₃).....	0.002%
Arsenic (As).....	0.0000%
Calcium, Magnesium, &c. . .	0.005%
Iron (Fe).....	0.0003%
Other Heavy Metals.....	0.000%

USES: Oxidizer; in forensic investigations;

determ'g S; in Parr calorimeter; detect'g purin bases, histidin; reag. f. alkaloids (Bloxam), aspidospermine (Czerniewski), morphine (Donath), tyrosine (Kühne), phenol (Rice; Tommasi; Vitali), indican (Strzyzowski), & atropine & cocaine (Vitali).

Potassium Chlorate Merck—C.P.—Cryst. or Powd.

Potassium Oxymuriate.— $\text{KClO}_3 = 122.56$.—Colorl., odorl., lustr. cryst. or cryst. powd.—SOL.: Abt 17 W.; alm. insol. A., E.

MAXIMUM OF IMPURITIES

Bromate (Br_2O_5)	0.080%
Chloride (Cl)	0.005%
Nitrate (N_2O_5)	0.002%
Sulphate (SO_3)	0.005%
Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

Colorl., odorl., lustr. cryst., gran., powd.; saline taste.—SOL.: 16.5 W. at 25° C., 1.8 boil. W., alm. insol. A., & sol. G., U.S.P.—MELT.: Abt 360° C. w. decomp.—ACTION: Antisep.—USES: *Intern.*, all forms of stomatitis, diphth., dyssep. w. gastric ferment'n, rheumatic neuralg., mercurial ptyalism, & dis. of muc. membr. It should never be given on an empty stomach.—*Externl.*, satur. solut., w. laudanum as emema f. painful piles; 3%–5% aqu. solut. in mouth-washes & gargles in stomatitis, angina, hay-fever, tonsillitis, aphthae, &c.; as powd. on ulcers & badly healing wounds.—*Techn.*, as a source of oxygen; fireworks; matches; printing & dyeing fabrics; dyeing cotton & wool black; manuf. aniline black & other dyes.—DOSE: 0.2–1 Gm. (3–15 grn.) in lozenges, tablets, or chalk mixt.; aver. dose, 0.25 Gm. (4 grn.).—MAX. D.: 1.3 Gm. (20 grn.) p.d. f. childr. 2–3 yrs old; 6 Gm. (90 grn.) p.d. f. adults.—In VETER. MED., in purulent wounds, ulcers, & cancer of the frog, as dusting powd.—INCOMP.: Iron iodide, tartaric acid.—ANTID.: Diuretics, ice, opium, pilocarpine, alkali carbonates, prolonged baths, caffeine-sodium benzoate (2 Gm. [30 grn.]) subcut., salt transfusions, anaesthetics.—CAUT.: Do not triturate or heat w. S, P, or organic or combustible comp'ds (an explosion may result).

Potassium Chloride Merck—Reagent

KCl = 74.56.—Colorl. cryst. or wh. cryst. powd.—SOL.: Abt 3 W.; insol. absol. A., E.

MAXIMUM OF IMPURITIES

Bromide (Br)	0.014%
Chlorate (Cl_2O_5)	0.003%
Iodide (I)	0.012%
N Compd's NH_3 , Nitrate, as N	0.001%
Phosphate (P_2O_5)	0.002%
Sulphate (SO_3)	0.003%
Barium (Ba)	0.002%
Calcium & Magnesium, (Ca, Mg)	0.005%
Iron (Fe) & o. Heavy Metals	0.000%
Sodium (Na)	Abt 0.02%

USES: Detect'g & determ'g silicofluorides; in photography.

Potassium Chloride Merck—C.P.—Cryst.

KCl = 74.56.—Wh. cryst. or wh. gran. powd.; saline taste.—SOL.: Abt 3 W.; insol. absol. A., E.

MAXIMUM OF IMPURITIES

Bromide (Br)	0.014%
Iodide (I)	0.012%
N Compd's (NH_3 , Nitrate as N)	0.003%
Sulphate (SO_3)	0.005%
Barium (Ba)	0.002%
Calcium & Magnesium (Ca, Mg)	0.020%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—N.F. V—Powd.

SOL.: 2.8 W. at 25° C., insol. A., N.F.; insol. C., E., HCl, B.P.C.—ACTION: Antipyretic.—USES: Fevers, epilepsy.—DOSE: 1–5 Gm. (15–75 grn.); aver. dose, 1 Gm. (15 grn.).

POTASSIUM CHLORIRIDATE—see Iridium & Potassium Chloride

Potassium Chlorochromate

Péligot's Salt.— $\text{KClCrO}_3 = 174.56$.—Red cryst.; evolve Cl on heat.—SOL.: W., w. decomp.—USES: Oxidizer.

POTASSIUM CHLOROPLATINATE—see Platinum & Potassium Chloride, Platinic

POTASSIUM CHLOROPLATINICYANIDE—see Platinum & Potassium Chlorocyanide

POTASSIUM CHLOROPLATINITE—see Platinum & Potassium Chloride, Platinous

Potassium Chromate Merck—Reagent

Yellow Potassium Chromate.— $\text{K}_2\text{CrO}_4 = 194.20$.—Lemon-yellow cryst.—SOL.: Abt 2 W. (solut. alk. to litmus); insol. A.

MAXIMUM OF IMPURITIES

Free Alkali (as KOH)	0.200%
Chloride (Cl)	0.003%
Sulphate (SO_3)	0.005%
Aluminum (Al)	0.010%
Calcium (Ca)	0.001%

USES: Indic. in argentometry; determ. Ba & Pb; detect. Pb, Hg, Ag, & Ba; reag. f. glucose (Horsley), quinine (Schlickum; De Vrij), emetine (Snelling), Mn (Wagenaar), Bombay mace (Waag), & Co & Ni (Weil).

Potassium Chromate Merck—C.P.

Neutral, or Yellow, Potassium Chromate.— $\text{K}_2\text{CrO}_4 = 194.20$.—Yellow cryst.—SOL.: Abt 2 W., insol. A.

MAXIMUM OF IMPURITIES

Free Alkali (KOH)	0.200%
Sulphate (SO_3)	0.030%
Chloride (Cl)	0.005%
Aluminum (Al)	0.010%
Calcium (Ca)	0.005%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, rarely as Alternative; Emetic; in syphil.—DOSE: 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.) as *alternative*;

0.1–0.25 Gm. ($1\frac{1}{2}$ –4 grn.) as emetic.—MAX. D.: 0.06 Gm. (1 grn.).

Potassium Chromate Merck—Yellow—Cryst. or Powd.

USES: As mordant in dyeing; manuf. inks, pigments, aniline black, enamels; finishing leather & tanning; in 1:200 solut. f. harden'g & preserv'g anatom. specimens.

POTASSIUM CHROMATE, RED—see Potassium Dichromate

Potassium Citrate Merck—C.P.

$K_3C_6H_5O_7 + H_2O = 324.39$.—Colorl. cryst., or wh. gran. powd.—SOL.: Less than 1 W., & eas. in G.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Phosphate (P_2O_5).....	0.003%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

do. Merck—U.S.P. X—Gran., or Powd.

DESCRIPT. & PROPERTIES: As preceding.—SOL.: 0.6 W. at 25° C., alm. insol. A., & v. sol. G.—Begins to decomp. above 200° C.—ACTION: Diaph.; Refrigerant; Diuret.—USES: Rheum., gout, malaria, lithiasis, fevers, bronch. affect., &c.—DOSE: 0.6–2.6 Gm. (10–40 grn.); aver. dose, 1 Gm. (15 grn.).—MAX. D.: 30 Gm. (8 dr.) per day.

do. —Effervescent—U.S.P. X

20 potass. citrate, 47.7 $NaHCO_3$, 25.2 tartaric acid, & 16.2 citric acid.—Wh. powd.—SOL.: W., w. effervesc.—ACTION: Refrigerant; Diaph.—USES: Agre. drink in fevers, rheum., lithiasis, bronch., &c.—DOSE: 2–6 Gm. (30–90 grn.); aver. dose, 4 Gm. (1 dr.).

Potassium Citrate—Monobasic

Monopotassium Citrate.— $KC_6H_7O_7 = 230.19$.—Wh., cryst. powd.—SOL.: W.

POTASSIUM COBALTCYANIDE—see Cobalt & Potassium Cyanide

POTASSIUM COBALTIHEXACYANIDE—see Cobalt & Potassium Cyanide

POTASSIUM COBALTIHEXANITRITE—see Cobalt & Potassium Nitrite

POTASSIUM COBALTINITRITE—see Cobalt & Potassium Nitrite

POTASSIUM COBALTOSULPHATE—see Cobalt & Potassium Sulphate

Potassium Creosotesulphonate

Consists chiefly of potassium guaiacolsulphonate & creosolsulphonate.—Whitish powd.—SOL.: W.; sltly A.—USES: As of potass. guaiacolsulphonate.

Potassium Cyanate Merck

$KCNO = 81.11$.—Wh. to yellowish-wh., cryst. powd.—SOL.: W.—USES: Organ. synth.

Potassium Cyanide Merck—C.P.

$KCN = 65.11$.—Wh., deliq. granules or fused pieces; odor of HCN.—SOL.: 2 cold W.; 1 boil'g. W. w. decomp.; sltly in A.—MELT.: At low red heat.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Ferrocyanide ($Fe'[CN]_6$).....	0.005%
Sulphate (SO_3).....	0.010%
Sulphocyanate (CNS).....	0.015%

USES: Reducer in determ. Sb, Sn, As, Ni, Zn, Co, Cu; detect'g picric acid, CO_2 ; in electrolysis; separ. Ni fr. Co, & Bi fr. Cu; reag. f. CO (Braun; Preyer; Tattersall), aloes (Dieterich), alkaloids & glucosides (Formanek), glucose (Gerrard; Mayezima), resorcinol (Girard), gallic acid (Griggi; Young), thiosulphate (Gutmann), Hg (Höhnel), santonin (Schermer), Cu (Schönbein), & sulphonal (Vulpis).

do. —U.S.P. VIII—Fused or Gran.

Wh., amorph. lumps, or gran. powd.; deliques. in air; odor of HCN.—SOL.: Abt 2 W. at 25° C., 1 boil'g W. w. decomp., & sltly A., U.S.P. VIII; (2.5 W., 100 cold, 80 boil'g A. [90%], B.P.C.).—ACTION: Sed.; Antispasm.; Anod.—USES: *Intern.*, dyspnea, asthma, phth., catarrh, whoop-cough, &c.—*Extern.*, 0.2%–0.8% aqu. solut. in neural. & local pains, prurigo, lichen, etc.; in 0.6%–1.2% aqu. solut. to remove $AgNO_3$ stains fr. conjunctiva.—DOSE: 0.004–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.); aver. dose 0.01 Gm. ($\frac{1}{8}$ grn.).—MAX. D.: 0.03 Gm. ($\frac{1}{2}$ grn.) single, 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.—VETER. MED., f. killing animals; lethal dose f. horses, 4–8 Gm. (1–2 dr.); dogs, 0.25–0.5 Gm. (4–8 grn.) in acidulated solut.—ANTID.: Cl-W., solut. chlorinated soda; H_2O_2 subcut.; ammonia; 10 grains $FeSO_4$ w. 1 fl. dr. tincture iron in 1 fl. oz. W.; cobalt nitrate, cold affusions, emetics, artif. respiration, freshly pptd ferric hydroxide w. Na_2CO_3 .—INCOMP.: Acids, & acid syrups; alkaloids, chloral hydrate; I; Pb, Hg, & Ag salts; permanganates, $KClO_3$ or KNO_3 .—CAUT.: Keep well stoppered.

do. Merck—94%–96%—Gran.

do. Merck—95%–98% Technical—Gran.

USES: *Techn.*, in electroplating; metallurgy (separ. Au & Ag fr. ores); silver plating & gilding; case hardening iron; destroying household pests & insects, & museum specimens (1 KCN + 2 plaster of Paris); photography; fumigating citrus fruits, raw cotton, grain, etc.; dyeing; calico printing; process engraving; manuf. paper.

POTASSIUM CYANOMERCURICSALICYLATE—see Cyarsal

POTASSIUM DIARSENATE—see Potassium Arsenate

Potassium Dichromate Merck—Reagent

Potassium Bichromate.— $K_2Cr_2O_7 = 294.20$.—Dark yellowish-red cryst. or granules.—SOL.: Abt 10 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.010%
Aluminum (Al).....	0.002%
Calcium (Ca).....	0.005%
Sodium (Na).....	Abt 0.01%

USES: Separating alkali earth metals; standardizing soluts of I & Na₂S₂O₃; prepar'g standard soluts used in oxidimetry; determ. value of Zn-dust; quant. determ. of alcohols, aldehydes; glycerin, Cu, U, Bi, N, H, S, Br; hardening agent in microscopy; detect'g sugars, alcohols, aldehydes, aliphatic hydroxy-acids, unsaturated fatty acids, phenol, & salicylic acid; reag. f. amino-bodies & eas. oxidiz. substcs (Agulhon), alkaloids (André; Hamlin; Luchini), alcohol (Anstie; Drechsler; Fleischmann; Gawalowski), alphanaphthol (Aymonier), H₂O₂ (Bach; Ilosvay), aniline (Beissenhirtz; Fritsche), tartaric acid (Cailletet), kairin & antipyrine (Cohn), brucine & curarine (Dragendorff), picrotoxin (Duflos; Köhler), melanin (Eiselt), coumarin (Flückiger), albumin (Gies), apomorphine & pilocarpine (Helch), atropine (Herbst), benzidine (Julius), Natal aloes (Léger), methyl alcohol (Miller), morphine (Otto), strychnine (Flückinger; Otto), malic acid (Papasogli; Tocher), cryogenin (Pegurier), cottonseed oil (Perkin), cane sugar (Reich), tannins (Sanio), cocaine (Schärge), gelsemine (Schwarz).

Potassium Dichromate Merck—C.P.—Cryst., or Powd.

Potassium Bichromate; Acid or Red Potassium Chromate.—K₂Cr₂O₇ = 294.20.—Large, yellowish-red, transluc. cryst. or granules; bitter, metal. taste.—SOL.: Abt 10 cold, 1.5 boil'g, W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.02%
Aluminum (Al).....	0.010%
Calcium (Ca).....	0.010%

USES: As of the Reagent, above.

do. —U.S.P. VIII; B.P.

DESCRIPT. SOL., &c.: As preceding.—ACTION: Caustic; Astring.; Alter.—USES: *Intern.*, phth., aphonia, gastric ulcer, syph., severe suffocative bronch. in childr., & also in influenza & colds, & chron. gastric catarrh.—*Extern.*, sweat. feet, tuberculous nodules, syphil. vegetations, & warts; nasal polypi; cancer & rodent ulcer.—*Techn.*, harden. anatom. specimens.—DOSE: 0.004–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.); in suffocative bronch., 0.0012–0.003 Gm. ($\frac{1}{50}$ – $\frac{1}{20}$ grn.) single f. childr. 1 yr old, & not more than 0.015 Gm. ($\frac{1}{4}$ grn.) p.d.—APPL.: 5% solut. f. sweat. feet; 10% solut. as caustic; 1:2000 solut. in chron. ulcer; in cancer, 0.5–1 cc. (8–15 M) of 10% solut. inj. into cancer ev. o. day; 10% solut. extern. in rodent ulcer.—In VETER. MED., as caustic in cancer of the frog, in quittor, etc.—ANTID.: Ice, emetics & stomach siphon, followed by soap, magnesia, or alkali carbonates; calcium saccharate.

do. Merck—Technical—Cryst. Gran., or Powd.

Yellowish-red cryst. or powd.—SOL.: Abt 10 W.

—USES: *Techn.*, in tanning leather, electro-technically, dyeing, painting, decorating porcelain, printing, heliography, photolithography, pigment-prints, albert-types, etc.; chrome glue; battery fluids; as oxidizer; in explosives; manuf. glass; also bleaching palm oil, wax and sponges; removing fusel oil fr. alcohol, waterproofing fabrics, purifying wood vinegar; manuf. pigments, aniline black, hydroquinone, pottery, porcelain; fly paper; depolarizer f. dry cells; staining wood, etc.

POTASSIUM DIHYDROGEN PHOSPHATE—see Potassium Phosphate, Monobasic

POTASSIUM DIIODOPARAPHENOLSULPHONATE—see Sozoiodole-Potassium

POTASSIUM DINITROALPHANAPHTHOLSULPHONATE—see Naphthol Yellow S

POTASSIUM DINITROAMINOPHEN(OL)ATE — see Potassium Picraminate

POTASSIUM DITHIONATE—see Potassium Hyposulphate

POTASSIUM ETHYLDITHIOCARBONATE—see Potassium Xanthogenate

Potassium Ethylsulphate

Potassium Sulphovinate.—K₂C₂H₅SO₄ = 164.21.—Wh. cryst.—SOL.: Eas. W., A.—USES: As of sod. ethylsulphate in identif. some organ. acids as ethyl esters.

POTASSIUM ETHYLXANTHOGENATE—see Potassium Xanthogenate

POTASSIUM FELDSPAR—see Orthoclase

Potassium Ferricyanide Merck—Reagent

K₃Fe(CN)₆ = 329.22.—Ruby-red cryst.—SOL.: Abt 2.5 W. (5% solut. neutral).

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.005%
Ferrous Comp'ds (Fe'').....	0.028%

USES: Indicator in titrating Fe'' salts w. K₂Cr₂O₇; differentiating betw. alpha & beta naphthols; detect'g ferrous salts, HNO₃, neosalvarsan, lignocellulose, formaldehyde, & reducers generally; reag. f. caffeine (Archetti), ptomaines (Brouardel-Boutmy), reducing gases (Brown), phenol (Candussio), strychnine (Favvy), glucose (Gause; Gentile), cyanized FeCl₃ (Hager), morphine (Kieffer; Otto), quinine (Kletzensky; Vogel), reducers (Löwenthal), H₂O₂ & HNO₂ (Schönbein), W. (Scriba), Co (Skey; Tyro), pyrogallol (Stahl), naphthol (Verhassel), & also f. tuberculosis (Fischer).

Potassium Ferricyanide Merck—C.P.—Cryst.

Potassium Ferridcyanide; Red Prussiate of Potash.—K₃Fe(CN)₆ = 329.22.—Large, red prisms (or red powd.).—SOL.: v. eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.020%
Sulphate (SO ₃).....	0.010%
Ferrous Comp'ds (Fe'').....	0.056%

USES: As of the Reagent, above.—CAUT.: Keep dry & fr. light.

Potassium Ferricyanide Merck—Technical—Cryst. or Powd.

USES: *Techn.*, dyeing wool, calico printing, etching liq. (Mercer's Liquor), heliography (blue prints), temper. iron & steel, brown mordant f. wood, &c.

POTASSIUM FERRIDCYANIDE—see Potassium Ferricyanide

POTASSIUM FERRIFEROCYANIDE—see Iron Ferrocyanide, Soluble

Potassium Ferrocyanide Merck—Reagent—Cryst.

$K_4Fe(CN)_6 + 3H_2O = 422.37$.—Yellow cryst.—SOL.: Abt 4 W. (5% solut. neutral to litmus); insol. A.

MAXIMUM OF IMPURITIES

Carbonate (CO ₂).....	0.000%
Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.005%

USES: Detect'g N, Fe, U, & some o. metals, & HNO₂; differentiating naphthols; estimat'g Zn & strychnine; reag. f. cinchonine (Bill), HNO₂ (Blunt), albumin (Bödecker; Hilger); glucose (Causse), HNO₃ (Davy), mineral acids (Hager; Huber), Cu (Hatschett), mercury oxycyanide (Messner), aconitine (Reichard), H₂S (Sato), nitrites (Schäffer), honey (Soltzien), naphthols (Verhassel), Zn, Co, & Ni (Werner); also f. clarifying urine (Carrez), as a reagent paper (Menyhert), & test f. tuberculosis (Roger-Levy).

Potassium Ferrocyanide Merck—C.P.—Cryst.

Yellow Prussiate of Potash.— $K_4Fe(CN)_6 + 3H_2O = 422.37$.—Lemon-yellow, monocl., tabular cryst. or prisms; mild, saline taste; effloresc. on expos.—SOL.: 4 W. at 25° C.; 2 boil. W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.020%
Sulphate (SO ₃).....	0.010%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, as sedat. & astring. in night-sweats of phth., whoop-cough, neuralg., intermit. fever; antidote f. poison'g by Fe & Cu salts.—DOSE: 0.2–1 Gm. (3–15 grn.); aver. dose, 0.5 Gm. (7½ grn.).

do. Merck—Technical—Cryst., or Powd.

Translucent, yellow, cryst., or powd.—USES: *Techn.*, dyeing wool & silk; tempering steel & casehardening iron; process engraving; explosives.

Potassium Fluoresceinate

$K_2C_{20}H_{10}O_5 = 408.38$.—Red powd.—SOL.: W.—USES: Detect'g corneal defects. See Fluorescein.

Potassium Fluoride Merck—C.P.

KF = 58.10.—Colorl., deliquescent. cryst.—SOL.: Abt. 1 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Free Acid (as HF).....	0.100%
Free Alkali (as K ₂ CO ₃).....	0.150%
Chloride (Cl).....	0.010%
Sulphate (SO ₃).....	0.020%
Iron (Fe).....	0.003%
Other Heavy Metals.....	Trace

do. —Technical

Wh., deliquescent, granules, or more or less conglutinating cryst. powd.—SOL.: Abt 1 W.; alm. insol. A.—USES: Fermentation industry; preservative; etching glass, etc.—CAUT.: Keep well stoppered.

Potassium Formate Merck

KCHO₂ = 84.11.—Colorl., deliq. granules.—SOL.: Eas. W., A.; insol. E.—MELT.: Abt 150° C.—ACTION: Antisept.; Muscular Tonic & Stim.; Diur.—USES: Restraining muscular tremor, warding off fatigue; antisept. in diphth., tuberc. & pneumon.; debility, convalesc. fr. acute dis., cardiac & renal dis., lumbago; rheum.—*Techn.*, as photog. reducer.—DOSE: 0.3–1.3 Gm. (5–20 grn.); as *diur.*, 3 Gm. (45 grn.) p.d.

Potassium Glycerophosphate

$C_3H_7O_3PO(OK)_2 = 302.36$.—Colorl. to sltly yellowish doughy mass.—SOL.: v. eas. W.—USES: As of the following.

do. —75%

Aqu. solut., $C_3H_7O_3PO(OK)_2 = 302.36$.—Colorl. to yellowish syrupy liq.—MISC.: W.; insol. A.—ACTION: Nerve Tonic.—USES: Deficient nerve nutrition, neurasthenia, Addison's dis., phosphaturia, convalesc. fr. infectious dis., &c.—DOSE: 0.25–0.6 cc. (4–10 M) 3–4 t.p.d. in mixt.; *subcut.*, 0.2–0.3 cc. (3–5 M) of the 75% solut. once daily in physiol. solut. NaCl.

Potassium Guaiacol Sulphonate Merck

$C_6H_3(OH).(OCH_3)SO_3K[1:2:6] = 242.25$.—Wh., odorl. cryst., or cryst. powd.; faint bitter, then sweet, taste.—SOL.: Eas. W. or syrup; alm. insol. A., B.P.C.—ACTION: Antituber.; Anticatatarrhal.—USES: Phth., bronch., pneumon., chron. coughs & catarrhs, scrof., typhoid, &c.—DOSE: 0.3–1.3 Gm. (5–20 grn.) 3 t.p.d.—Childr., 0.1–1 Gm. (1½–15 grn.) p.d., accord. to age.—CAUT.: Keep in the dark & well stop'd (pink to brownish on expos. to light & air).

Potassium Hippurate

$KC_9H_8NO_3 + H_2O = 235.23$.—Wh., cryst. powd.—SOL.: v. eas. W., eas. boil'g A.—ACTION: Uric-Acid Solvent.—USES: Gout, rheum., arteriosclerosis.—DOSE: 0.3–2 Gm. (5–30 grn.).

POTASSIUM HYDRATE—see Potassium Hydroxide

POTASSIUM HYDROGEN SULPHATE—see Potassium Bisulphate

POTASSIUM HYDROSULPHIDE—see Potassium Sulphhydrate

Potassium Hydroxide Merck—Reagent—Pure, Sticks

Potassium Hydrate; Caustic Potash; Potassa.—KOH = 56.11.—Wh. sticks or irreg. pieces.—SOL.: Aft 1 W.; readily A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
N as Nitrate, Nitrite, Ammonia, etc.....	0.001%
Phosphate (P_2O_5).....	0.003%
Silicate (SiO_2).....	0.020%
Sulphate (SO_3).....	0.004%
Aluminum (Al).....	0.010%
Calcium (Ca).....	0.005%
Heavy Metals (as Ag).....	0.002%
Potassium Carbonate (K_2CO_3)	2.5%

USES: As neutralizer & alkali; detergents; nitrates & S; in gas analysis & organic analysis & synthesis; volumetric soluts; saponifying fats & esters.

do. Merck—Reagent, Purest

DESCRIPT., &C.: As preced'g.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
N as Nitrate, Nitrite, NH_3 , &c	0.001%
Phosphate (P_2O_5).....	0.004%
Silicate (SiO_2).....	0.020%
Sulphate (SO_3).....	0.004%
Aluminum (Al).....	0.010%
Calcium (Ca).....	0.010%
Heavy Metals.....	0.000%
Potas. Carbonate (K_2CO_3)...	2.75%

USES: As of the Reagent, Pure, above.

Potassium Hydroxide Merck—C.P.—Pure, Sticks

Potassium Hydrate; Caustic Potash, or Potassa.—KOH = 56.11 + aq.—Wh. sticks.—SOL.: Aft. 1 W., eas. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.015%
Sulphate (SO_3).....	0.008%
Aluminum (Al).....	0.030%
Calcium (Ca).....	0.010%
Heavy Metals (as Ag).....	0.003%
Potassium Carbonate (K_2CO_3)	3.0%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Purified, Sticks

Wh., deliq. pieces or sticks; absorbs CO_2 & moisture fr. air.—SOL.: 0.9 W., aft 3 A., & 2.5 G. at 25° C., 0.6 boil. W., & v. sol. boil. A., U.S.P.—ACTION: Escharotic; Antacid; Diur.—USES: *Intern.*, gout, lithiasis, scrofula, gonorr., cystitis, acid dyspep., & cutan. affect.—*Extern.*, caustic f. bites of rabid dogs & o. poisonous animals, to destroy warts, gangren. tissue, &c.—DOSE: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.), h'ly dil. w. W.—VETER. MED., to destroy neoplasms, & in chron. ecz. & thickening of skin.—ANTID.: *Extern.*, wash w. plenty water then w. vinegar; *intern.*, vinegar or juice of lemon, grapefruit, or orange, copiously, followed by olive oil; *eyes*, wash w. 5% solut. boric acid; opium if pain, & stimulants in de-

pression; ice-water enemas in bloody diar.—CAUT.: Keep well stoppered.

do. Merck—Technical—Lumps (Unbroken or Broken)

USES: Techn., in soap manuf., mordant f. wood; manuf. oxalic acid, intermediates, dyes, etc.; bleaching, absorbing gaseous CO_2 , mercerizing cotton; paint & varnish removers; electroplating, photoengraving, & lithography; in detergents; printing inks.—CAUT.: Keep in well closed containers.

do. Merck—Solution—U.S.P. X

Solution Potassa; Potassa, or Potash, Lye.—Clear, colorl. liq.; acrid, caustic taste; alk. react.—SP. GR.: Aft 1.046 at 25° C., U.S.P.; 1.045 at 15.5° C., B.P.—SOL.: W.—ACTION: Antilithic; Diuret.; Antacid.—USES: *Intern.*, urethritis, cystitis, calculi, scrof., skin dis.—*Extern.*, stimulating lotion in arthritic swellings.—Also chem. as neutralizer, alkali, etc.—DOSE: 0.3–1.3 cc. (5–20 M) in water; aver. dose, 1 cc. (15 M).—ANTID.: Mild acids & oils.—INCOMP.: Fats, organic matter, alkaloids, ammon. salts.—CAUT.: Keep in rubber- or paraffin-stoppered bottles.

Potassium Hydroxide with Lime—Powd. or Lumps

Potassa w. Lime; Vienna Caustic; Vienna Paste; Potassa-lime.—MIXT. equal parts of KOH + $Ca(OH)_2$.—Deliq., grayish-wh., alka. line powd., or lumps.—ACTION: Caustic.—USES: *Extern.*, in paste w. alc., cautery f. ulcers, chancroids, etc.—CAUT.: Keep well stoppered.

POTASSIUM HYPERCHLORATE—see Potassium Perchlorate

Potassium Hypophosphite Merck—N.F. V

KPH_2O_2 = 104.16.—Wh., gran., deliq. powd., or opaque, wh. cryst.; pung., saline taste.—SOL.: 0.6 W., & 9 A. at 25° C., 0.4 boil. W., & 5 boil. A., N.F.—ACTION: Nerve Stimulant.—USES: Phth., scrof., soften'g of bones, & all cases of deficient nerve power.—DOSE: 0.12–2 Gm. (2–30 grn.); aver. dose, 0.5 Gm. (8 grn.).—CAUT.: Explodes violently on trituration or heating w. any nitrate, chlorate, or o. oxidizer; keep in well closed containers in a dry, cool place.

Potassium Hyposulphate

Potassium Dithionate.— $K_2S_2O_8$ = 238.32.—Colorl. cryst.—SOL.: W.—USES: *Chem.*, as a agent.

POTASSIUM HYPOSULPHITE—see Potassium Thiosulphate

Potassium Indigodisulphonate

Potassium Sulphindigotate, or Indigosulphate.— $K_2C_{16}H_8N_2O_2(SO_3)_2$ = 498.48.—Dark-blue powd.—SOL.: W.—USES: Techn., in dyeing var. fabrics.

POTASSIUM INDIGOSULPHATE—see Potassium Indigodisulphonate

Potassium Iodate Merck—Reagent

KIO₃ = 214.02.—Wh., cryst. powd.—SOL.: Abt 13 W. (solut. neutral to litmus).—Decomposes above 100° C. (I liberated).

MAXIMUM OF IMPURITIES

Chlorate (ClO ₃).....	0.010%
Chloride & Bromide (as Cl) ..	0.020%
Free Acid (as HIO ₃).....	None
Iodide (I).....	0.001%
Sulphate (SO ₃).....	0.005%
Heavy Metals.....	0.000%
Sodium (Na).....	Abt 0.03%

USES: Standardizing volumetric soluts in iodometry; determ'g value of Zn-dust; determ'g Zn & As; reag. f. Ba & Sr (Benedict), thorium (Meyer), & morphine (Mohr).

Potassium Iodate Merck—C.P.

KIO₃ = 214.02.—Wh. cryst.—SOL.: Abt 13 cold, 5 boil'g, W.

MAXIMUM OF IMPURITIES

Chlorate (ClO ₃).....	0.020%
Chloride & Bromide (as Cl)	0.020%
Free Acid (as HIO ₃).....	None
Iodide (I).....	0.010%
Sulphate (SO ₃).....	0.010%
Heavy Metals.....	0.000%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, As antisept. & alterative in diphtheria, gangrenous & mercurial stomatitis, & ptialism, inst. of potass. chlorate.—DOSE: 0.25–0.5 Gm. (4–8 grn.) sev'l t.p.d.

Potassium Iodide Merck—Reagent—Cryst.

KI = 166.02.—Wh. cubical cryst.—SOL.: Less than 1 W.; abt 20 A.

MAXIMUM OF IMPURITIES

Carbonate (as K ₂ CO ₃).....	0.040%
Chloride (Cl).....	0.010%
Cyanide (CN).....	0.000%
Iodate (I ₂ O ₅).....	0.0005%
Nitrate (N ₂ O ₅).....	0.002%
Phosphate (P ₂ O ₅).....	0.004%
Sulphate (SO ₃).....	0.003%
Barium (Ba).....	0.002%
Calcium, etc.....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%
Sodium (Na).....	0.030%

USES: Prepar. volumetr. soluts; detect. iodates; determ. Cl, Br, Fe⁺⁺⁺ salts, CrO₃, chromates, As, Sb, & phenols accord. to Koppeschaar; H₂O₂, MgO, ZnO, peroxides, perborates, persulphates & o. oxidizers; reag. f. albumin (Bouchardat; Gouver; Morikawa), glucose (Brücke; Heinrich; Jaworowski; Sachsse), proteids (Brücke), fuchsine (Carobbio), aldehyde (Crismer), HCN (Denigès), alkalies (Dobbin), CrO₃ (Donath), cocaine & eucaïne (Eigel), alkaloids (Fron; Heikel; Mangani; Marmé; Mayer; Planta; Tanret), Cu⁺⁺ salts (Harrison), blood (Helwich), mercerized cotton (Hübner), colchicine (Johannson), Mb & Mo (Kafka), Hg (Klein; Moore), benzin (Klein), Bi (Léger;

Thresh), free acids (Mohr), acetacetic acid (Mörner), NH₃ (Nessler; Trillat), OsO₄ (Piñerua), cellulose (Schultze), As (Seybel-Wikander), alum (Strachan).

Potassium Iodide Merck—C.P.—Cryst. or Gran.

KI = 166.02.—Wh., cubical cryst.—SOL.: Less than 1 W., abt 20 A.

MAXIMUM OF IMPURITIES

Carbonate (as K ₂ CO ₃).....	0.060%
Chloride (Cl).....	0.050%
Iodate (I ₂ O ₅).....	0.001%
Sulphate (SO ₃).....	0.003%
Barium (Ba).....	0.004%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

Colorl., transp., or transluc., cubical cryst., or wh., gran. powd.; pung., saline, bitter taste; stly deliques. in moist air.—SOL.: 0.7 W., abt 22 A., & 2 G. at 25° C., 0.5 boil. W., & 0.8 boil. A., U.S.P.—ACTION: Alter.; Antisymph.; Emmen.; Uric Acid Solvent.—USES: *Intern.*, pleuritis, rheum. pericarditis, angina pectoris, asthma, arteriosclerosis, syph., aneurisms, pneum., dyspnea, scrof. swellings, lead poison'g. chron. metritis, amenor., &c.—*Extern.*, ointm, 1:10; also 1–3:100 solut. in corneal opacities.—*Techn.*, Mfg. photographic emulsions.—DOSE: 0.12–2 Gm. (2–30 grn.) sev'l t.p.d.; aver. dose, 0.3 Gm. (5 grn.), & as antiluetic 2 Gm. (30 grn.).—In VETER. MED. in actinomycosis, goiter, lymphatic extravasations, heaves, etc., in doses of 4–10 Gm. (1–2½ dr.) for cattle; 4–8 Gm. (1–2 dr.) for horses; 2–5 Gm. (30–75 grn.) for sheep, goats, & pigs; 0.25–1 Gm. (4–15 grn.) for dogs. Also used in struma, adenitis, phlegmons, etc.—ANTID.: Sodium bicarbonate, sodium sulphanilate, naphthionic acid.—INCOMP.: Chloral hydrate, tartaric acid, HgCl, AgNO₃, KClO₃, metallic salts, acids, alkaloidal salts.

Potassium Iodide-Starch Paper

Schönbein's Ozone Paper.—Wh. paper impregn. w. a KI-starch paste.—USES: Detecting oxidizers, as Cl, Br, HNO₃, & O₃ (w. all of these the paper affords a blue color).

POTASSIUM IODOPLATINATE—see Platinum & Potassium Iodide

POTASSIUM IRIDICHLORIDE—see Iridium & Potassium Chloride

POTASSIUM ISOAMYLSULPHATE—see Potassium Amylsulphate

Potassium Lactate

KC₃H₅O₃ = 128.16 + aq.—Colorl. to yellowish, syrupy liq.—SOL.: W., A.; insol. E., B.P.C.—USES: Gout, rheum.—DOSE: 0.3–1 cc. (5–15 M).

Potassium Lactophosphate

Potassium Phospholactate.—Potass. phos-

phate w. 51.8% potass. lactate.—Wh., doughy mass.—SOL.: Eas. W.—USES: Where combined action of phosphoric & lactic acids desired.

Potassium Malate

$K_2C_4H_4O_5 = 210.25$.—Colorl., viscid mass.—SOL.: Eas. W.—USES: Organic synthesis.—CAUT.: Keep fr. air.

Potassium Manganate

$K_2MnO_4 = 197.13$.—Dark-green powd.—SOL.: W.—USES: Disinf., & purify. water courses.—*Techn.*, for bleaching & purify. oils, bleaching fibers & chamois skins; mordanting wood; in aniline dyeing as source of oxygen; in printing fabrics, manuf. odorl. batteries, washing CO_2 in manuf. mineral waters, disinf., exterminating Oidium Tuckeri, photography, etc.

Potassium Metabisulphite Merck—C.P.

Potassium Pyrosulphite.— $K_2S_2O_5 = 222.32$.—Colorl. cryst. or wh. powd.—SOL.: W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Arsenic (As).....	0.0005%
Heavy Metals.....	Trace

USES: Source of SO_2 ; preserv. foods; photo. developer. The *techn.* grade is used in dyeing & in brewing.

Potassium Metaborate

$KBO_2 = 82.00$.—Wh., cryst. powd.; caustic alkal. taste & alkal. react.—SOL.: Slowly in cold, eas. in hot, W.

Potassium Metaphosphate

$KPO_3 = 118.14$.—Fr. monopotassium phosphate by fusion.—Wh. powd.—SOL.: Eas. in dil. acids; insol. W.

POTASSIUM METARSENITE—see Potassium Arsenite

Potassium Methylete

$CH_3OK = 70.13$.—Obt. by action of metal. K on anhydr. methyl A.—Colorl. cryst.—SOL.: Eas. in methyl A.; decomp. by W. into methyl A. & KOH.—USES: *Chem.*, as a methylating agent in organ. chem.

Potassium Methylsulphate

$2KCH_3SO_4 + H_2O = 318.39$.—Wh. cryst.—SOL.: W., A.—USES: Organic reagent.

POTASSIUM MICA—see Muscovite

Potassium Molybdate

$K_2MoO_4 + 5H_2O = 328.28$.—Microcryst., wh. powd.—SOL.: W.—USES: Chem. reagent like the sodium molybdate.

POTASSIUM MONOPHOSPHATE — see Potassium Phosphate, Dibasic

POTASSIUM MONOSULPHIDE—see Potassium Sulphide

Potassium Myronate

Sinigrin.— $KC_{10}H_{16}NS_2O_9 + H_2O = 415.42$.—Fr. black mustard seed.—Wh. cryst.; bitter

taste.—SOL.: Eas. W.; dil. A.—USES: *Extern.*, as rubefac.

Potassium Nitrate Merck—Reagent

$KNO_3 = 101.11$.—Colorl. cryst.—SOL.: Abt 4 W. (solut. neutral to litmus); alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Total Chlorine.....	0.0025%
Iodate (I_2O_5).....	0.002%
Nitrite (N_2O_3).....	0.0001%
Sulphate (SO_3).....	0.000%
Calcium (Ca).....	0.010%
Iron (Fe).....	0.0008%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.000%

USES: In oxidizing fluxes, especially f. determ'g S in organic substcs & silicon in ferro-silicon; detect'g Cr & Mn; destroying organic matter in forensic analysis.

Potassium Nitrate Merck—C.P.—Cryst.

$KNO_3 = 101.11$.—Colorl. cryst.—SOL.: Abt 4 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Total Chlorine (Cl).....	0.010%
Iodate (I_2O_5).....	0.004%
Nitrite (N_2O_3).....	0.000%
Sulphate (SO_3).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst., Gran., or Powd.

Saltpeper; Niter.—Transp., colorl. prisms, or wh., cryst. powd.; cooling, saline, pung. taste.—SOL.: 2.8 W., & 620 A., at 25° C., 0.5 boil. W., & sol. in G., U.S.P.—ACTION: Antisep.; Refrigerant; Diuret.; Diaph.—USES: *Intern.*, fevers, drosy, pleurisy, pericarditis, asthma, rheum., measles, & dis. of gastric & intestinal mucosa. Fumes of burning potass.-nitrate paper are inhaled in asthma.—*Extern.*, as gargle (1:100) in angina.—*Techn.*, fireworks; fluxes; pickling meats; manuf. intermediates, matches & gunpowder; in fertilizers; manuf. glass; impregnating candle wicks; treating tobacco to make it burn evenly; tempering steel.—DOSE: 0.3–1.5 Gm. (5–23 grn.) single, & 2–10 Gm. ($\frac{1}{2}$ –2 $\frac{1}{2}$ dr.) p. day; aver. dose, 0.3 Gm. (5 grn.).—In VETER. MED., cattle, 10–25 Gm. (2 $\frac{1}{2}$ –6 dr.); horses, 8–15 Gm. (2–4 dr.); sheep, goats, & pigs, 2–5 Gm. (30–75 grn.); dogs, 0.2–0.5 Gm. (3–8 grn.); cats, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.); fowl, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.).—ANTID.: Opium, analeptics.

do. Merck—Flat Drops

Potassium Nitrate Paper

Unsize, wh. paper, dipped in 20% solut. KNO_3 & dried.—USES: Asthma, by inhal. fumes of burning paper; sometimes the paper is used together with stramonium leaves.

Potassium Nitrate—Fused—Balls or Drops

Sal Prunelle.—Wh. balls or drops; cryst., fracture.—SOL.: W.—ACTION: Antisep., Diur., &c.—USES: Sore mouth & throat, colds, &c.

Potassium Nitrite Merck—C.P.—Sticks

$\text{KNO}_2 = 85.11$.—Wh. or sltly yellowish, amorph., deliq. sticks.—SOL.: v. eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.050%
Sulphate (SO_4).....	0.40%
Calcium (Ca).....	0.002%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.002%

USES: Chem., Quant. determ. urea, Co. & amino acids; detect'g I, antipyrine; reag. f. phenols (Arnold-Werner), indol (Baeyer; Moenotte), $\text{Hg}(\text{CN})_2$ (Buschi), Co (Fischer), salicylic acid (Itallie), ethyl sulphide & thiophene (Liebermann), acetic acid (Liplawsky), phloridzin (Nickel), formaldehyde & methyl A. (Voisenet).—MEDIC.: As vasodilator; increases cerebral circ.; in chronic high blood pressure, cardiac asthma, epilepsy, hemiplegia.—DOSE: 0.015–0.12 Gm. ($\frac{1}{4}$ –2 grn.) sev'l t.p.d.—ANTID.: Naphthionic acid, sodium sulphanilate.—CAUT.: Keep well stoppered.

do. Merck—Purified—Sticks

Wh. or yellowish-wh., deliquesce. sticks; oxidize in air to nitrate.—SOL.: v. eas. W., spar. in A., insol. absol. A.—USES: Manuf. diazo-dyes & cobalt yellow.

Potassium Nitroprusside

$\text{K}_2\text{Fe}(\text{CN})_5(\text{NO}) + 2\text{H}_2\text{O} = 330.15$.—Garnet-red, hygrosc. cryst.—SOL.: A.; v. eas. W.—USES: Test f. albumin in urine (Mya), & f. sulphides.—CAUT.: Keep well stoppered, dry, fr. air.

Potassium Oleate—Neutral

Approx., $\text{KC}_{18}\text{H}_{33}\text{O}_2 = 320.45$.—Yellowish or brownish, soft mass.—SOL.: W., A.—ACTION: Detergent; Emollient.—USES: Cleansing & healing agent in abscesses, injuries, &c.

POTASSIUM ORTHOAMINO BENZOATE—see Potassium Anthranilate

Potassium Osmate

Potassium Perosmate.— $\text{K}_2\text{OsO}_4 + 2\text{H}_2\text{O} = 369.13$.—Violet, hygrosc. cryst.—ACTION: Alter.; Sed.—USES: As of perosmic acid in epilepsy, neural., goiter, &c.—TECHN.: as test f. nitrogenous matter in W. anal.—DOSE: 0.004–0.015 Gm. ($\frac{1}{16}$ – $\frac{1}{4}$ grn.).

POTASSIUM-OSMIC CHLORIDE—see Osmium & Potassium Chloride

Potassium Oxalate Merck—Reagent—Neutral

$\text{K}_2\text{C}_2\text{O}_4 + \text{H}_2\text{O} = 184.23$.—Colorl. cryst.—SOL.: Abt 3 W.

MAXIMUM OF IMPURITIES

Free Acid (as $\text{H}_2\text{C}_2\text{O}_4$).....	0.0045%
Free Alkali (as KOH).....	0.0040%
Readily Carboniz. Substcs....	None
Chloride (Cl).....	0.001%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.001%
Ammonium Compd's (NH_3)..	0.001%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: Precipitant & reducer; in photography; testing quinine (Schaefer).

Potassium Oxalate Merck—Neutral, C.P.

$\text{K}_2\text{C}_2\text{O}_4 + \text{H}_2\text{O} = 184.23$.—Colorl., transp. cryst.—SOL.: Abt 3 W.

MAXIMUM OF IMPURITIES

Free Acid ($\text{H}_2\text{C}_2\text{O}_4$).....	0.023%
Free Alkali (as KOH).....	0.020%
Sulphate (SO_3).....	0.020%
Chloride (Cl).....	0.010%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Neutral, Pure

DESCRIPT. & SOL.: As preceding.—USES: Phlegmonous inflam.—DOSE: 2–3 cc. (30–45 M) of 1% aq. solut. hypoderm., in 10–12 places around the seat of inflam., repeated ev. 3–4 days.—TECHN. in photography.

POTASSIUM OXYMURIATE—see Potassium Chlorate

Potassium Percarbonate

$\text{K}_2\text{C}_2\text{O}_8 + \text{H}_2\text{O} = 216.23$.—Wh., gran., mass.—SOL.: W., w. evol. of oxygen.—USES: In microscopy f. detect. tubercle bacilli stained w. fuchsin in smears, inst. of treatment w. acid; in photogr. under the name "Antihypo," to remove last traces sod. thiosulph. (Valenta); in discharge printing of wool dyed w. indigo; also in chem. anal. f. detect. Ti, V, Cr, Ce, & oxidizing Fe (ous) to Fe (ic) (Treadwell).—CAUT.: Keep protected fr. light and moisture.

Potassium Perchlorate

Potassium Hyperchlorate.— $\text{KClO}_4 = 138.56$.—Colorl. cryst.—SOL.: Abt 65 cold, abt 8 boil., W.; insol. A.—MELT: 610°C , w. decomp.—ACTION: Antipyr.; Antiper.; Sed.; Diur.—USES: Pernicious fever & intermit. or remit. fevers.—TECHN.: in explosives, pyrotechn. & photogr.—DOSE: 0.3–1 Gm. (5–15 grn.).

Potassium Periodate

$\text{KIO}_4 = 230.02$.—Sm., colorl. cryst.—SOL.: v. sltly W; in aq. solution liberates periodic acid which is a powerful oxidizer.

Potassium Permanganate Merck—Reagent

$\text{KMnO}_4 = 158.03$.—Dark violet, alm. black, lustrous cryst.—SOL.: Abt 16 W.

MAXIMUM OF IMPURITIES

Chloride & Chlorate (as Cl)....	0.003%
Nitrate (N_2O_5).....	0.010%
Sulphate (SO_3).....	0.004%

USES: Efficient oxidizer; prepar. volumetr. soluts.; determ. N (Kjeldahl method), Fe, Cu,

Mo, U, Cd, Mg, $K_4Fe(CN)_6$, dextrose, H_2O_2 & o. peroxides, alkali sulphides, grape sugar, & HNO_3 , HNO_2 , $H_2C_2O_4$ & H_3BO_3 ; testing f. fats in petrolatum, & cinnamyl cocaine in cocaine or its salts, & cinnamic acid in benzoin; reag. f. eosine (Baeyer), alkaloids (Beckurts), glucose (Baeyer; Bertrand), perchlorate (Bruckleveen; Klobbie), xanthine bases (Camilla), fermentation vinegar (Cazeneuve-Cotton), tartaric acid (Chapman-Smith), animal fats (Crouzel), citric acid (Denigès; Stahre), N, & empyreum. substcs in NH_3 (Donath), aconitine (Dunstan), cocaine (Giesel; Hankin), formic acid (Guyot), methyl A. (Habermann-Oestreicher; Joung), colchicine (Hager), urochromogen (Heflebower; Weiss), apoa tropine (Kessel), A. (Koninck; Yvon), cinnamylcocaine (Liebermann), CO (Mermet), NaOH in Na_2CO_3 (Müller), emetine (Peroni), Siam benzoic acid (Schacht), H_2O_2 (Schönbein), coniin (Vitali), acetone (Willen), & adrenalin (Zanfrangani).

Potassium Permanganate Merck—C.P.—Cryst.

Chameleon Mineral.— $KMnO_4 = 158.03$.—Dark violet cryst.—SOL.: Abt 16 W.

MAXIMUM OF IMPURITIES

Chloride & Chlorate (as Cl) . . .	0.010%
Nitrate (N_2O_5)	0.030%
Sulphate (SO_3)	0.025%

USES: As of the Reagent, above.

do. Merck — U.S.P. X — Large or Small Cryst.

Dark-purple, slender, prism., opaque cryst.; blue, metal. luster; sweet, w. astring. after-taste.—SOL.: 13.5 W. at 25° C., 3.5 boil. W., & decomp. by A., U.S.P.; (20 W. at 15.5° C., B.P.).—Decomp. at 240° C.—ACTION: Disinf.; Deodorant; Emmen.—USES: *Intern.*, amenor., dysmenor., peritonitis, Asiatic cholera, after labor, in uterine involut. or atrophy, diphth., & zymotic dis. generally; *subcut.* poisoning by snake bites, opium or morphine, hydrocyanic acid or phosphorus.—*Extern.*, tubercul. dactylitis & tubercul. fistulas; in 1–2:3500 solut. f. wash. lower bowel in dysent.; in powd. (3:1 charcoal) or paste (w. petrolatum) as hemostat. in parenchymatous hemorrhh.; in 0.02%–0.1% solut. as inj. in gonorrh., gleet, leucorrh., & in snake bites; as 1:5000–2000 solut. as irrigation in gonorrh.; as 0.5% wash in diphth., scarlatina, cancer, gangr. & foul ulcers, abscesses, otorrh., fetid breath & perspiring feet, & as gen'l germicide; in 1:200 solut. as mouthwash in stomatitis.—*Techn.*, as disinf. (cesspools, drains, etc.); purify. oils, bleaching resins, waxes, fats, oils, straw, cotton, silk, & o. fibers & chamois skins; dye'g wood brown; manuf. dyes; source of oxygen; printing fabrics; manuf. odorl. batteries; washing CO_2 in manuf. mineral waters; extermin Oidium Tuckeri; photography; absorbing poison gases in military masks; tanning leather; purifying water; preserv'g wood; as oxidizer.—DOSE: 0.06–0.2 Gm. (1–3 grn.) after meals, in solut., or in pills made w. kaolin & petrolatum; aver. dose, 0.06 Gm. (1 grn.). In

opium poison., 10–15 cc. ($2\frac{1}{2}$ –4 fl. dr.) of a 1:200 solut. inj. into 2–3 places, or intraven.—VETER. MED., as wash (0.05%–2% solut.) in endometritis in dogs, snake bites, wounds & ulcers, also as 1% solut. in itching of skin in horses.—INCOMP.: Acids (mineral), alcohol, NH_4OH , arsenites, bromides, phenol, chlorides, oils, fats, Fe (ous) & Hg (ous) salts, G., gums, H_2O_2 , hypophosphites, hyposulphites, organ. substcs, oxalates, oxalic & picric acids, piperazine, sulphites, tannic & tartaric acids.—Stains on fabrics, etc., are removed w. $H_2C_2O_4$ or HCl.

POTASSIUM PEROSMATE—see Potassium Osmate

Potassium Perruthenate

$KRuO_4 = 204.80$.—Black, opaque cryst.—SOL.: Sltly W.—Decomp. at 440° C.

Potassium Persulphate Merck—Reagent—Special, for Determination of Nitrogen

$K_2S_2O_8 = 270.32$ —Colorl. cryst.—SOL.: Abt 50 W. (solut. neutral to litmus).

MAXIMUM OF IMPURITIES

Nitrogen (N) 0.001%

USES: Oxidizer, especially adapted for the Van Slyke micro-Kjeldahl method of determ. N.

Potassium Persulphate Merck—C.P.

$K_2S_2O_8 = 270.32$.—Wh., cryst.; yield abt 5.6% available O.—SOL.: Abt 50 W.—Decomp. below 100° C.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.005%
Manganese (Mn)	0.000%
Nitrogen (N)	0.003%
Heavy Metals	Trace

USES: Separat'g Cl, Br, & I; in oxidase investigations; in organic analysis & synthesis; reag. f. adrenalin (Ewins), & I (Merck).

do. Merck

Wh. cryst.—SOL.: Abt 50 W.—USES: Bleaching; exceed. powerful oxidizer, & in 0.5%–2% solut. as antisept. in wounds, cuts, etc.; in photography, under the name "Anthion" to remove last traces of thiosulphate fr. plates & paper; also in soap making to render dark soaps lighter in color.

Potassium Phenate

Potassium Phenylate, or Carbolate.— $C_6H_5OK = 132.17$.—Wh. to reddish, cryst., hygrosc. lumps.—SOL.: v. eas. W.—ACTION: Antiseptic.—USES: Diar., dysent., &c.—DOSE: 0.06–0.2 Gm. (1–3 grn.) sev'l t.p.d.—CAUT.: Keep dry.

POTASSIUM PHENOLSULPHONATE—see Potassium Sulphocarbonate

POTASSIUM PHENYLATE—see Potassium Phenate

Potassium Phosphate Merck—Dibasic—C.P.

Potassium Monophosphate; Dipotassium Hydrogen Phosphate.— $K_2HPO_4 = 174.25$.—Deliq., amorph., wh. granules, lumps, or powd.—SOL.: Eas. W.; insol. A.

MAXIMUM OF IMPURITIES

Carbonate.....	Trace
Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.020%
Arsenic (As).....	0.0001%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of Sodium Phosphate, Dibasic, C.P., but is more sol. than the latter.

do. Merck—Gran. or Powd.

DESCRIPT. & SOL.: As preceding.—ACTION: Alter.; Saline Purg.—USES: Scrof., rheum., phth., &c.—DOSE: 0.6–2 Gm. (10–30 grn.) in aqu. solut.

Potassium Phosphate Merck—Reagent—Monobasic, Anhydrous

Sörensen's Potassium Phosphate.— KH_2PO_4 = 136.16.—Colorl. cryst.—SOL.: Abt 4 W. (solut. acid to litmus).

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.0000%
Sulphate (SO_3).....	0.0050%
Chloride (Cl).....	0.0020%
Moisture.....	0.1000%

USES: With Na_2HPO_4 (Sörensen's) for determining the H-ion concentration of bacteriological culture media & other fluids.

Potassium Phosphate Merck—Monobasic—C.P.

Potassium Acid Phosphate; Potassium Dihydrogen Phosphate; Potassium Biphosphate; Monopotassium Orthophosphate.— KH_2PO_4 = 136.16.—Colorl., quadratic cryst., or cryst. powd.—SOL.: Eas. W.; insol. A.—MELT.: 96°C .

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.02%
Iron (Fe).....	0.003%
Other Heavy Metals.....	0.000%

do. Merck

DESCRIPT. & SOL.: As of preced'g.—ACTION & USES: As of acid sodium phosphate, to render the urine acid in cystitis & after operations on the bladder.—DOSE: 1–4 Gm. (15–60 grn.); best given in small doses freq. repeated.

Potassium Phosphate Merck—Tribasic—C.P.—Gran.

Tripotassium Phosphate.— K_3PO_4 = 212.34.—Wh., deliques., gran. powd.—SOL.: v. eas. W.; insol. A.

MAXIMUM OF IMPURITIES

Carbonate (CO_3).....	Trace
Chloride (Cl).....	0.010%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.020%
Arsenic (As).....	0.000%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.000%

Potassium Phosphite

K_2HPO_3 = 158.25.—Wh., deliques. powd.—SOL.: v. eas. W.; insol. A.

POTASSIUM PHOSPHOLACTATE—see Potassium Lactophosphate

Potassium Picraminate

Potassium 4.6-Dinitro-2-amino-1-phen(ol)ate.— $\text{K}.\text{O}.\text{C}_6\text{H}_2(\text{NH}_2)(\text{NO}_2)_2$ = 237.19.—Dark-brown cryst. mass.—SOL.: W.; sltly A.

Potassium Picrate

Potassium Trinitrophen(ol)ate.— $\text{KC}_6\text{H}_2(\text{NO}_2)_3\text{O}$ = 267.17.—Yellow, reddish, or greenish, lustr. needles; explode when struck or heated.—SOL.: 200 W. at 15°C .; 4 boil. W.—USES: *Techn.* in manuf. explosives.—CAUT.: Explosive.

POTASSIUM PICROCYAMATE—see Potassium isopurpurate

Potassium Piperate

$\text{KC}_{12}\text{H}_9\text{O}_4$ = 256.23.—Light-yellow, cryst. powd.—SOL.: v. eas. hot W.

POTASSIUM PLATINIBROMIDE—see Platinum & Potassium Bromide

POTASSIUM PLATINICHLORIDE—see Platinum & Potassium Chloride, Platinic

POTASSIUM PLATINIC IODIDE—see Platinum & Potassium Iodide

POTASSIUM PLATINICYANIDE—see Platinum & Potassium Sesquicyanide

POTASSIUM PLATINITHIOCYANATE—see Platinum & Potassium Sulphocyanate

POTASSIUM PLATINOCHLORIDE—see Platinum & Potassium Chloride, Platinous

POTASSIUM PLATINOCYANIDE—see Platinum & Potassium Cyanide

Potassium Propionate

$\text{KC}_3\text{H}_5\text{O}_2 + \text{H}_2\text{O}$ = 130.17.—Wh., hygrosc. cryst.—SOL.: v. eas. W.

Potassium Propylsulphate

$\text{KC}_3\text{H}_7\text{SO}_4$ = 178.23.—Wh., cryst. powd.—SOL.: v. eas. W.

Potassium isopurpurate

Potassium Picrocyanate.— $\text{KC}_8\text{H}_4\text{O}_6\text{N}_5$ = 305.21.—Brownish-red cryst.; greenish, metal. luster.—SOL.: Slty in W.—Explodes at 215°C .—INCOMP.: H_2SO_4 (causes explosion).—CAUT.: Highly explosive!

POTASSIUM PYROBORATE—see Potassium Biborate

Potassium Pyrophosphate Merck

$\text{K}_4\text{P}_2\text{O}_7 + 3\text{H}_2\text{O}$ = 384.53.—Deliq., gran., cryst. mass.—SOL.: Eas. W.; insol. A.—USES: As of sod. pyrophos.

Potassium Pyrosulphate Merck

Anhydrous Acid Potassium Sulphate; Potassium Anhydrosulphate.— $\text{K}_2\text{S}_2\text{O}_7$ = 254.32.—Colorl. pieces.—SOL.: W.

POTASSIUM PYROSULPHITE—see Potassium Metabisulphite

POTASSIUM QUADROXALATE—see Potassium Tetroxalate

POTASSIUM RHODANIDE—see Potassium Sulphocyanate

POTASSIUM SALICYLALDEHYDE—see Potassium Salicylite

Potassium Salicylate Merck

$C_6H_4(OH)COOK = 176.18$.—Wh. powd.—SOL.: Eas. A., W.—ACTION: Antirheum.; Antipyr.; Analg.—USES: Rheum., pleurisy, pericarditis, lumbago, muscular pains, &c.—DOSE: 0.3–2 Gm. (5–30 grn.).—CAUT.: Keep well stoppered & protected fr. light.

Potassium Salicylite

Potassium - salicylaldehyde; Potassium Ulmarate.— $C_6H_4.OK.CO.H = 160.18$.—Yellow, v. deliq. powd.—SOL.: W., A.—ACTION: Antirheumatic.—USES: Rheum., lumbago, muscular pain, &c.—DOSE: 0.2–1 Gm. (3–15 grn.) sev'l t.p.d.—CAUT.: Keep well stoppered.

Potassium Santoninate

$KC_{15}H_{19}O_4 = 302.33$.—Wh., deliq., cryst. powd.—SOL.: W., A.

Potassium Selenate

$K_2SeO_4 = 221.40$.—Colorl. cryst., or wh. powd.—SOL.: W.—USES: As reagent.

Potassium Silicate Merck—Pure, Dry

Soluble Glass; Water-glass.— $K_2Si_2O_5 = 214.40$.—Transluc. to transpar., hygrosc., glass-like pieces.—SOL.: W.—USES: Intern., cancer, arthritis, uric-acid diathesis, diab.—Extern., toothache (applied in the cavity), stings of bees & mosquitoes, erysip., fixed dress. f. dis. joints, fractures, &c.; also techn., & in mineral waters.—DOSE: Cancer, 0.05 Gm. ($\frac{3}{4}$ grn.) 3 t.p.d.; in arthritis, etc., 0.5–1 Gm. (8–15 grn.) twice daily.

do. —Pure, Solution

Water-glass Solut.—Abt 10% $K_2Si_2O_5$ in W.—Alm. colorl., odorl., syrupy liq.; alk. react.—SP. GR.: 1.30 = 34° Bé.—USES: Pharm. & techn. as preced.—CAUT.: Stopper w. rubber or cork.

do. —Technical, Solution, Sp. Gr. Abt 1.35 = 38° Bé.

Yellowish to light brown, thick liq.—USES: Techn., in fireproof. fabrics, cement, stones, waterproof. walls, hydraulic mortars, dyeing & bleaching, painting on glass, cements, fillers for soaps, &c.

Potassium Silicofluoride

$K_2SiF_6 = 220.30$.—Fine, wh. powd.—SOL.: Sltly hot, alm. insol. cold, W.; insol. A.

POTASSIUM SOZOIODOLATE—see Soziodole-Potassium

Potassium Stannate

$K_2SnO_3 + 3H_2O = 298.95$.—Colorl. cryst.—SOL.: W.—USES: Dyeing & printing fabrics.

Potassium Stannosulphate

Marignac's Salt.— $K_2Sn(SO_4)_2 = 389.02$.—Wh. cryst.—SOL.: HCl; dil. NaOH or KOH solut.—USES: Determ. HNO_3 (Longi's method); detect. Hg & Bi.

Potassium Stearate

$KC_{18}H_{35}O_2 = 322.47$.—Wh., cryst. powd.—SOL.: Hot W., hot A.—USES: As of sodium stearate.

Potassium Succinate

$K_2C_4H_4O_4 = 194.25$; occurs w. $\frac{1}{2}$, 2, or 4, H_2O .—Wh., hygrosc. cryst. powd.—SOL.: Eas. W.—USES: Delir. tremens.—DOSE: 0.3–0.6 Gm. (5–10 grn.) sev'l t.p.d.

Potassium Sulphantimonate

Potassium Thioantimonate.— $(K_3SbS_4)_2.9H_2O = 893.62$.—Colorl. to yellowish cryst.—SOL.: W.; insol. A.

Potassium Sulphate Merck—Reagent

$K_2SO_4 = 174.26$.—Wh., hard cryst.—SOL.: Abt 10 W.; insol. A.

MAXIMUM OF IMPURITIES

Free Alkali & Acid.....	None
Chloride (Cl).....	0.001%
NH ₃ & Nitrate as Nitrogen (N).....	0.001%
Arsenic (As).....	0.0002%
Calcium & Magnesium (Ca, Mg).....	0.020%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%
Sodium (Na).....	Abt 0.03%

USES: Pptng Pb & Ba; in Kjeldahl-Gunning-Arnold N determ'n; reag. f. formaldehyde (Luebert).

Potassium Sulphate Merck—C.P.—Cryst. or Powd.

Sal Polychrestum; Arcanum Duplicatum; Tartarus Vitriolatus.— $K_2SO_4 = 174.26$.—Colorl., transp. cryst., or wh. powd.; bitter, saline taste.—SOL.: Abt 10 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
NH ₃ & Nitrate as Nitrogen (N).....	0.003%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—N.F. V, Purified—Cryst. or Powd.

DESCRIPTION: As preceding.—SOL.: 10 W. at 25° C., 4 boil. W., & insol. A.—ACTION: Cath.; Diur.; Aper.—USES: Constip., & as antilactatic.—DOSE: 1–3 Gm. (15–45 grn.) as aperient; aver. dose, 1 Gm. (15 grn.); 15–20 Gm. (4–5 dr.) as purgative.

Potassium Sulphide

Potassium Monosulphide.— $K_2S = 110.26$; occurs also w. 5 H_2O .—Yellow to yellowish-red, fused, cryst. plates.—SOL.: W.—USES: Reagent; remov'g hair; manuf. dyes.

"POTASSIUM SULPHIDE"—see Potassa, Sulphurated

POTASSIUM SULPHINDIGOTATE—see Potassium Indigodisulphonate

Potassium Sulphite Merck—Pure

$K_2SO_3 + 2H_2O = 194.29$.—Wh. to yellowish-wh. powd.—SOL.: Abt 3.5 W.; sltly in A.; decompd by acids (SO_2 liberated).—ACTION: Antisep.; Lax.—USES: *Medic.*, acid gastric ferment., hemorrhoids, & gastric ulc.—*Techn.*, dyeing as discharge in print. fabrics.—DOSE: 1–4 Gm. (15–60 grn.) single, & 5–10 Gm. (75–150 grn.) p.d.

Potassium Sulphobenzoate

$C_6H_4.KSO_3.COOK + 2H_2O = 314.36$.—Wh. cryst.—SOL.: A., eas. W.—ACTION: Antiseptic.—USES: Skin dis. & eroded surf. in 0.4%–0.5% solut.

Potassium Sulphocarbonate Merck

Potassium Phenolsulphonate.— $C_6H_4(OH)SO_3^-K [1:4] + H_2O = 230.25$.—Wh. cryst.—SOL.: W., A.—ACTION: Antisep.; Antiparasitic; Germicide.—USES: To check ravages of grapevine parasite, *Phylloxera vastatrix*.

Potassium Sulphocarbonate

Potassium Trithiocarbonate.— $K_2CS_3 = 186.39$.—Yellowish-red, v. deliq. cryst.—SOL.: v. eas. W.—USES: For baths in skin dis.—*Techn.*, as antiphyllorin; also as sensitive test f. Co & Ni (Braun).

Potassium Sulphocyanate Merck—Reagent

Potassium Thiocyanate.— $KSCN = 97.17$.—Colorl., deliques. cryst.—SOL.: Less than 1 W.; A.

MAXIMUM OF IMPURITIES

Substcs Insol. in Alcohol.....	0.000%
Chloride (Cl).....	0.005%
Sulphate (SO_4).....	0.020%
Ammonium Comp'ds (NH_3)...	0.002%
Iron (Fe).....	0.0002%
Other Heavy Metals.....	0.000%

USES: Detect. Fe, Cu, & Ag; determ. halogens, Cu, & Hg; reag. f. alkaloids (Artus; Gmelin; Henry; Skey), strychnine (Artus), glucose (Bang; Fillingier; Reidisch), molybdic acid (Braun), HCl (Ewald), H_2S & mineral acids (Ganassini), alcohol (Grassini), chloral hydrate (Jaworowski), free acids (Mohr), Co (Skey), tartaric acid (Tagliarini), & albumin (Zouchlos).

Potassium Sulphocyanate Merck—C.P.—Cryst.

Potassium Thiocyanate or Rhodanide or Sulphocyanide.— $KSCN = 97.17$.—Colorl. deliques. need.—SOL.: v. eas. (less than 1) W. w. decided fall in temperature; eas. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.070%
Sulphate (SO_4).....	0.020%
Ammonium Comp'ds (NH_3)...	0.010%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Pure—Cryst.

DESCRIPT. & SOL.: As preceding.—ACTION: Sed.; Antispasm.; Anod.—USES: Phth., spasmodic cough, catarrh, dyspnea, mania, &c.—*Techn.*, freezing mixtures; manuf. intermediates, artif. mustard oil; printing & dyeing textiles; manuf. pigments & dyes.—DOSE: 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.).—MAX. D.: 0.3 Gm. (5 grn.) single; 1.5 Gm. (24 grn.) p.d.

do. —Solution

Volhard's Solut.—11 Gm. of pure cryst. potass. sulphocyanate in 1 liter dist. W. (U.S.P.).—USES: In indirect determination of silver, or halogens.

POTASSIUM SULPHOCYANIDE—see Potassium Sulphocyanate

POTASSIUM SULPHOCYANOPLATINATE—see Platinum & Potassium Sulphocyanate

POTASSIUM SULPHOVINATE—see Potassium Ethylsulphate

Potassium Sulphhydrate

Potassium Hydrosulphide.— $2KSH + H_2O = 162.35$.—Colorl., deliq. cryst., rapid. becom. yellow on expos. to air w. form. of polysulphide.—SOL.: Eas. W., A.—USES: Separ. heavy metals (Bi, Cd, Cu, etc.).

Potassium Tartrate Merck—C.P.—Cryst.

Soluble Tartar.— $K_2C_4H_4O_6 \cdot \frac{1}{2}H_2O = 235.26$.—Wh. cryst. powd.—SOL.: 1 W., v. sltly A.

MAXIMUM OF IMPURITIES

Acidity (as $KHC_4H_4O_6$).....	0.188%
Chloride (Cl).....	0.002%
Phosphate (P_2O_5).....	0.003%
Sulphate (SO_4).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: In alkaline Cu soluts. f. detect. & determ. reducing sugars.

do. Merck—Neutral—Gran. or Powd.

Wh. granules or cryst. powd.—SOL.: 1 W., v. sltly A.—ACTION: Diuret.; Lax.—USES: Check griping effects of senna; also in fevers as refrigerant.—DOSE: *Diuret.*, 1–2 Gm. (15–30 grn.) sev'l t.p.d.; *lax.*, 3–15 Gm. (45–240 grn.).

POTASSIUM TARTRATE, FERRIC—see Iron & Potassium Tartrate, Ferric

Potassium Tellurate Merck

$K_2TeO_4 + 3H_2O = 323.75$.—Colorl. cryst.—SOL.: W.—ACTION: Antihidrotic.—USES: Night sweats of phth.—DOSE: 0.02–0.04 Gm. ($\frac{1}{3}$ – $\frac{2}{3}$ grn.), at night.

Potassium Tellurite Merck

$K_2TeO_3 = 253.70$.—Wh., gran. powd.—SOL.: W.—USES: 1:50,000 solut. f. detect'g presence of bacteria, e.g., living pathogenic bacteria in sera; reacts w. the more common micro-organisms & forms characteristic black reduction comp'ds.

POTASSIUM TETRABORATE—see Potassium Baborate

POTASSIUM TETRAIODOFLUORESCIN—see Erythrosine

Potassium Tetroxalate Merck

Potassium Quadroxalate; Sal Acetosella; Salt of Sorrel; Essential Salt of Lemons.— $\text{KHC}_2\text{O}_4 \cdot \text{H}_2\text{C}_2\text{O}_4 + 2\text{H}_2\text{O} = 254.18$.—Colorl. cryst. or powd., permanent in air.—SOL.: Abt 50 W.—USES: Cleansing; remov. rust & ink spots; metal polish.

POTASSIUM THIOANTIMONATE—see Potassium Sulphantimonate

POTASSIUM THIOCYANATE—see Potassium Sulphocyanate

Potassium Thiosulphate

Potassium Hyposulphite.— $\text{K}_2\text{S}_2\text{O}_3 + 1\frac{1}{2}\text{H}_2\text{O} = 217.34$.—Colorl., hygrosc. cryst.—SOL.: W.—USES: As of sod. thiosulphate; in volumetr. analysis.—CAUT.: Keep well stoppered.

POTASSIUM TRINITROPHEN(OL)ATE—see Potassium Picrate

POTASSIUM TRITHIOCARBONATE—see Potassium Sulphocarbonate

POTASSIUM TRITUNGSTATE—see Tungsten Bronze, Violet

Potassium Tungstate

Normal Potassium Wolframate.— $\text{K}_2\text{WO}_4 = 326.20$.—Heavy, deliq., cryst. powd.—SOL.: Abt 2 W.; insol. A.—USES: Techn., in manuf. magenta bronze, &c.—CAUT.: Keep fr. damp air.

POTASSIUM ULMARATE—see Potassium Salicylite

POTASSIUM URANATE—see Uranium Oxide, Dark-Orange

Potassium Urate

Acid Potassium Urate.— $\text{KHC}_5\text{H}_2\text{N}_4\text{O}_3 = 206.18$.—Wh. powd.—SOL.: Sltly in W.

Potassium *iso*-Valerate

$\text{KC}_5\text{H}_9\text{O}_2 = 140.20$.—Wh. to yellowish, hygrosc. cryst.—SOL.: v. eas. W.—ACTION: Stim.—USES: Hyst., insanity, & low fevers.—DOSE: 0.12–0.3 Gm. (2–5 grn.) sev'l t.p.d.

POTASSIUM WOLFRAMATE—see Potassium Tungstate

POTASSIUM XANTHATE—see Potassium Xanthogenate

Potassium Xanthogenate

Potassium Ethyldithiocarbonate, or Ethylxanthogenate, or Xanthate.— $\text{C}_2\text{H}_5\text{O.CS.SK} = 160.28$.—Colorl. to light-yellow cryst.—SOL.: Eas. W., sltly A., insol. E.—USES: As an anti-phyloxerin.—CAUT.: Keep fr. air & moisture.

POTASSIUM ZIRCONIFLUORIDE—see Zirconium & Potassium Fluoride

Potassium & Ammonium Tartrate

$\text{NH}_4\text{KC}_4\text{H}_4\text{O}_6 = 205.19$.—Wh., cryst. powd.—SOL.: v. eas. W.—ACTION: Cathartic.—USES: As of Rochelle salt.

Potassium & Antimony Sulphurated—Powd.

Hepar Antimony; Liver of Antimony.—Antimony oxide & sulphide, w. potass. sulphide &

sulphate.—Brown powd.—SOL.: Part. W.—USES: Chronic metallic poisoning.—*Extern.*, in mouthwashes & lotions in 1% solut.; w. W. to paste as depil.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Potassium & Bismuth Tartrate

Finely gran., wh., odorl. powd.; sweetish taste; compos'n variable; the product may contain fr. 30%–70% Bi, hence neither dose statements given below, nor the effects to be expected fr. a given dose, are to be relied upon.—SOL.: W.; insol. A., C., E.—USES: Syphilis.—DOSE: 0.1–0.2 Gm. (1½–3 grn.) by intramusc. inj., preferably into the glutei, & repeated at intervals of 4–7 days until a total of 2.4–3 Gm. (37–45 grn.) has been given.

POTASSIUM & LITHIUM PLATINOCYANIDE—see Platinum & Potassium & Lithium Cyanide

Potassium & Sodium Antimonyltartrate Merck

$\text{KNaC}_4\text{H}_3\text{O}_6(\text{SbO}) = 257.20$.—Wh. scales or powd.—SOL.: W.—ACTION & USES: As of antimony & potass. tartrate, partic. f. injection.

POTASSIUM & SODIUM BOROTARTRATE—see Potassium Borotartrate

POTASSIUM & SODIUM PLATINOCYANIDE—see Platinum & Potassium & Sodium Cyanide

Potassium & Sodium Tartrate Merck—Reagent—Cryst.

Rochelle, or Seignette, Salt.— $\text{KNaC}_4\text{H}_4\text{O}_6 + 4\text{H}_2\text{O} = 282.22$.—Clear, odorl. cryst.—SOL.: Readily in W. (solut. alkal. to litmus, but neutral to ph'thalein); alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Sulphate (SO_3).....	0.010%
Ammonium Compds (NH_3)...	0.005%
Calcium (Ca).....	0.005%
Lead (Pb).....	0.001%
Other Heavy Metals.....	0.000%

USES: Reag. f. glucose (Bonnans; Buchner; Fehling; Gräber; Maridet; Nylander; Otto; Peska; Pollitis; Salm; Soxhlet; Violette), uric acid (Arthaud-Butte), blood (Grigoriev), & f. investigating W. (Winckler).

Potassium & Sodium Tartrate Merck—C.P.—Cryst. or Powd.

Tartarated Soda; Rochelle, or Seignette, Salt.— $\text{KNaC}_4\text{H}_4\text{O}_6 + 4\text{H}_2\text{O} = 282.22$.—Colorl., transp. cryst. or wh. powd.—SOL.: Abt 1 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.030%
Calcium (Ca).....	0.030%
Lead (Pb).....	0.002%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Cryst. or Powd.

DESCRIPTION: As preceding.—SOL.: 0.9 W. at 25° C., alm. insol. A., U.S.P.; (1.5 W. at 15.5° C., B.P.).—MELT.: Abt 74° C., U.S.P.—ACTION:

Purg.; Refrig.; Diur.—USES: *Intern.*, constip., headache, rheum., dropsy. Preferred as lax. in hemorrhoids.—*Techn.*, manuf. of mirrors, & in Fehling's solut.—DOSE: Aver., 10 Gm. (2½ dr.); as *diur.*, 0.5–2 Gm. (8–30 grn.) sev'l t.p.d.; *purg.*, 15–30 Gm. (4–8 dr.).—INCOMPAT.: Acids, NH_4Cl , salts of Ba, Ca, or Pb; MgSO_4 ; K_2SO_4 ; AgNO_3 , Na_2SO_4 .

Potassium & Zinc Iodide

$\text{ZnI}_2 \cdot \text{KI} = 485.23$.—Colorl., v. hygrosc. cryst.—USES: Test f. alkaloids.

POTATO-SPIRIT OIL—see Alcohol Amylic

PRAYER BEADS—see Abrus

PRECIPITÉ BLANC—see Mercury Chloride, Mercurous

PREPARED CHALK—see Calcium Carbonate

PRICKLY ASH—see Xanthoxylum

Primuline Yellow

Carnotine; Polychromine; Thiochromogen; Aureoline; Sulphine.—MIXT. of sod. salts of the monosulphonic acids of the higher derivatives of dehydrothioparadoluidine, w. some salt of dehydroparadoluidinsulphonic acid.—Dull, yellow powd.—SOL.: W.—USES: Dyeing unmord. cotton primrose-yellow, in alkal. or neutr. bath; in photog. f. making prints in various colors.

PRINCE'S PINE—see Chimaphila

PRINTER'S ACETATE—see Aluminum Acetate

PRINTING BLUE—see Induline, Alcohol-soluble

Procaine Merck—U.S.P. X

Ethocaine Hydrochloride, B.P.C.; Paraminobenzoylethyldiaminoethanol Hydrochloride; Diethylaminoethyl-*p*-aminobenzoate Hydrochloride.— $\text{NH}_2 \cdot \text{C}_6\text{H}_4 \cdot \text{COO} \cdot \text{C}_2\text{H}_4 \cdot \text{N}(\text{C}_2\text{H}_5)_2 \cdot \text{HCl} = 272.71$.—Colorl. cryst. or powd.—SOL.: 0.6 W. & 30 A. at 25° C., sltly in C., alm. insol. E., U.S.P.—MELT.: 153°–156° C.—ACTION: Local Anesth. like cocaine.—USES: Minor surgery, dentistry, &c.—DOSE: Up to 0.5 Gm. (8 grn.) intern. f. adults.—APPL.: In *infiltration anesthesia*; 0.25 Gm. (4 grn.) as 0.25% or 0.5% solut. in physiolog. salt solut.; in *instillation & inject.*, 0.1 Gm. (1½ grn.) as 1% or 2% solut. in physiolog. salt solut.; in *ophthalm.*, 1%–5% solut.; in *rhinolaryngol.*, 5%–20% solut. with 6 drops epinephrine solut. f. ea. 10 cc. (150 M). In dental operations, a 1%–2% solut.; f. dentine anesthesia, grinding, resection of roots, etc., a 1% solut. suffices. Epinephrine may be added to all soluts.

Procaine Nitrate

$\text{NH}_2 \cdot \text{C}_6\text{H}_4 \cdot \text{COO} \cdot \text{C}_2\text{H}_4 \cdot \text{N}(\text{C}_2\text{H}_5)_2 \cdot \text{HNO}_3 = 299.26$.—Small, colorl., odorl. cryst.—SOL.: W., A.—MELT.: 100°–102° C.—ACTION: As of Procaine.—USES: In 3% solut.

Proferrin

Iron Nucleoproteid.—Organic comp'd cont'g 10% Fe & 1% P.—Reddish-brown powd.—SOL.: Alkali soluts.; insol. W. & acids.—ACTION: Hematinic.—USES: Anemia.—DOSE: 0.2–0.3 Gm. (3–5 grn.) 3 t.p.d.

Proflavine

3,6-Diaminoacridinium Monohydrogen Sulphate.— $\text{C}_{13}\text{H}_{12}\text{N}_3 \cdot \text{HSO}_4 + \text{H}_2\text{O} = 325.27$.—Reddish-brown, colorl., cryst. powd.—SOL.: W., A.; alm. insol. C., E., liq. petrolatum, & oils (N.N.R.).—ACTION: Strong Antisep.—USES: Wounds, gonorrh.—APPL.: For wounds, in 1:1000 solut. in physiol. NaCl solut. by syringe, swab, or irrigat'n, & on gauze f. light packing; or 1% oint. on gauze. In gonorrh., 1:1000 solut. as inj., & in 1:4000 (or weaker) solut. as irrigat'n.

Proganol

A comp'd of Ag & albumose (silver protein) cont'g not less than 8.3% Ag in organ. combin'n.—USES: As of o. organ. Ag comp'ds in 2%–10% solut. in the eye, in 0.5%–10% solut. f. nose & throat, 0.25%–1% solut. in acute gonorrh., 2%–10% solut. in chron. gonorrh., & 2%–10% solut. in gynecology.

Propaesin

Propyl *p*-Aminobenzoate.— $\text{C}_6\text{H}_4 \cdot \text{NH}_2 \cdot \text{COO} \cdot (\text{C}_3\text{H}_7) = 179.16$.—Colorl., odorl., alm. tastel. cryst., sltly alkaline react.—SOL.: Eas. A., B., C., E., oils (abt 7%); v. sltly W.—MELT.: 73° C.—ACTION: Loc. Anesth.—USES: *Intern.*, painful wounds & ulcers, & o. dis. of mucous membr., partic. of gastrointest. tract., gastric ulcer, & gastralgia.—*Extern.*, as local anesthetic in affect. of nose, ear, larynx, & in dentistry, wounds, open sores, ulcers of skin & muc. membranes, & tubercul. ulcer of larynx.—DOSE: 0.25–0.5 Gm. (4–8 grn.) single; 2–3 Gm. (30–45 grn.) p.d.—APPL., 1%–20% ointment.

Propaesin Colloid

20% propaesin, 72.5% G., w. 2.5% starch & 5% A.—USES: As preced., mixed w. 5 parts W. & given internal.; also used extern. in washes, gargles, etc.

PROPANAL—see Aldehyde Propylic

PROPANEDIACID—see Acid Malonic

PROPANENITRILE—see Ethyl Cyanide

PROPANETRIOL—see Glycerin

PROPANOL—see Alcohol Propylic

PROPANOLDIACID—see Acid Tartronic

PROPANON—see Acetone

PROPANON ACID—see Acid Pyroracemic

PROPARGYL TRIBROMIDE—see Allyl Tribromide

PROPENAL—see Acrolein

PROPENYL ALCOHOL—see Glycerin

p-PROPENYLALCOHOL METHYL ESTER—see Anethol

PROPENYLCHLORHYDRIN—see α -Monochlorhydrin

Propionamide

$\text{C}_2\text{H}_5 \cdot \text{CO} \cdot \text{NH}_2 = 73.08$.—Fr. ethyl propionate by NH_3 .—Colorl. cryst.—SOL.: W.—MELT.: 79° C.

PROPIONE—see Diethylketone

PROPIONIC ESTER, or ETHER—see Ethyl Propionate

PROPIONIC GLYCOCOLL—see α -Alanin

PROPIONITRILE—see Ethyl Cyanide

Propionyl Chloride

$C_2H_5.COCl = 92.52$.—Fr. propionic acid & PCl_3 by heat.—Colorl. liq.—SOL.: A. & W. w. decomp.—SP. GR.: 1.063 at 15° C.—BOIL.: 78° C.

PROPONAL—see Propytal

Proposote

Creosote Phenylpropionate.—Abt 50% Creosote.—Straw-colored, oily, alm. odorl., neutral liq.; sltly bitter, almond-like taste.—Insol. W. & acids; slowly decomp. by alkalies.—USES: As of creosote, in tubercul. coughs, acute & chron. bronch., purul. bronch., asthma, etc.—DOSE: 0.6 cc. (10 M).

Propyl Acetate—Normal

$CH_3COOC_3H_7 = 102.11$.—Colorl. liq.; odor of pears.—SOL.: A.—SP. GR.: 0.892 at 15° C.—BOIL.: 102° C.

PROPYL *p*-AMINO BENZOATE—see Propaesin

Propyl Bromide—Normal

$CH_3.CH_2.CH_2Br = 122.99$.—Fr. propyl A. by HBr.—Colorl. liq.—SOL.: A.—SP. GR.: 1.356–1.359 at 15° C.—BOIL.: 71° C.

Propyl *iso*-Bromide

$CH(CH_3)_2Br = 122.99$.—Fr. *iso*-propyl iodide by Br.—Colorl. liq.—SOL.: A., B., C., E.; insol. W.—SP. GR.: 1.424–1.426 at 15° C.—BOIL.: 70° C.

Propyl Butyrate

$C_3H_7CO.OCC_3H_7 = 130.15$.—Colorl. liq.—SOL.: A.—SP. GR.: 0.879 at 15° C.—BOIL.: 143° C.

Propyl Carbamate

Propyl Urethane.— $C_3H_7.NH_2.CO_2 = 103.10$.—Colorl. prisms.—SOL.: A.—MELT.: 53° C.—BOIL.: 195° C.

Propyl Chloride—Normal

$CH_3.CH_2.CH_2Cl = 78.53$.—Fr. propyl A. & HCl (or PCl_5), or fr. propyl iodide & ICl.—Colorl., mobile liq.—SOL.: A.—SP. GR.: 0.890 at 15° C.—BOIL.: 46° C.

Propyl Chlorcarbonate

Propyl Chlorformate; Propyl Chlorcarboxylate.— $CICOOC_3H_7 = 122.54$.—Clear, colorl. liq.; the vapors strongly irritate the eyes & mucous membranes.—SOL.: B., C., E.; grad. decomp. by W. or A.—SP. GR.: 1.094 at 15° C.—BOIL.: 115° C.

PROPYL CHLORCARBOXYLATE—see Propyl Chlorcarbonate

PROPYL CHLORFORMATE—see Propyl Chlorcarbonate

Propyl Formate

$CHOOC_3H_7 = 88.08$.—Colorl. liq.; pleas. odor.—SOL.: A.—SP. GR.: 0.909.—BOIL.: 81° C.

Propyl Iodide—Normal, Primary

$CH_3.CH_2.CH_2I = 169.99$.—Fr. propyl A., I., & red P.—Colorl. or sltly yellow liq.—SOL.: A.; insol. W.—SP. GR.: 1.747 at 15° C.—BOIL.: 102° C.

Propyl *iso*-Iodide—Secondary

Iodopropane.— $(CH_3)_2.CH.I = 169.99$.—Fr. G., I., & P., by dist'n.—Colorl. to yellow liq.—SOL.: A., B., C., E.; insol. W.—SP. GR.: 1.710–1.713 at 15° C.—BOIL.: 89° C.

PROPYL PARAMINO BENZOATE—see Propaesin

Propyl Propionate

$C_2H_5COOC_3H_7 = 116.13$.—Colorl. liq.—SOL.: A.—SP. GR.: 0.890 at 15° C.—BOIL.: 122° C.

PROPYL URETHANE—see Propyl Carbamate

Propyl Valerate

$C_3H_7.C_4H_9COO = 144.17$.—Fr. fusel oil, $K_2Cr_2O_7$, & H_2SO_4 by dist'n.—Colorl. liq.—SOL.: E., C.—SP. GR.: 0.869 at 15° C.—BOIL.: 167° C.

"PROPYLAMINE"—see Trimethylamine

Propylamine—True, Anhydrous

$CH_3.CH_2.CH_2.NH_2 = 59.10$.—Fr. C_3H_7Cl (or C_3H_7I) by NH_3 .—Colorl., alkal. liq.; strong ammon. odor.—MISC.: W.—BOIL.: 50° C.—Not used medicinally; the preparation formerly so employed was a more or less pure aq. solut. of the isomeric compd. of trimethylamine.

Propylamine Hydrochloride—True

$CH_3.CH_2.CH_2.NH_2.HCl = 95.56$.—Deliq., colorl. cryst.—SOL.: Eas. W.—MELT.: 157°–158° C.

PROPYLCARBINOL—see Alcohol Butylic, Primary, Normal

PROPYLENE BROMIDE, NORMAL } see Trimethylene Bromide
PROPYLENE DIBROMIDE }

Propytal

Dipropylbarbituric Acid Merck; Dipropylmalonylurea Merck; Proponal.— $(C_3H_7)_2.C:(CO.NH)_2.CO = 212.19$.—Colorl. cryst. powd.—SOL.: 1640 W. at 20° C.; abt 70 boil. W.; eas. in A., B., C., E., acetone, & dil. alkalies.—MELT.: 145° C. (corr.).—ACTION: Hypnot.; Analges.—USES: Simple or chron. insom., & espec. when due to pain; as alternative f. veronal (abt twice as powerful as veronal, & develops its action more rapidly).—DOSE: 0.15–0.5 Gm. ($2\frac{1}{2}$ –8 grn.); the higher dose is, however, rarely necessary.—Best given in powd., or w. W., tea, or some alcoholic beverage.

do. Merck—Tablets, 0.1 Gm. Each

Prostate Gland—Dried, Powd.

Fr. the steer; 1 part = 6 parts fresh gland.—USES: Prostatic hypertrophy & prostatorrhea.—DOSE: 0.2–0.8 Gm. (3–12 grn.) p.d.

Protagon—(Not identical w. Cerebrin)

$C_{160}H_{308}N_5PO_{35} = 2892.34$.—Fr. brain substce;

cont. phosphorus.—Wh. powd.—SOL.: Hot A. & E.

Protalbumose

Intermed. product of hydrolytic decomp. of protein (proteose).—Grayish-yellow powd.—SOL.: Cold & hot W., & in solut. NaCl.—Pptd like globulins by satur'n w. NaCl & MgSO₄.

Protan

Tannin Nucleoproteid.—Abt 50% tannin.—Light-brown, tastel., odorl. powd.—Insol. W., dil. acids.—ACTION: Intest. Astring.—USES: Cholera morbus, chronic diar., chol. inf., &c.—DOSE: Infants & childr., 0.3–0.6 Gm. (5–10 grn.) ev. hr; in acute catarrhal diar., 1–2 Gm. (15–30 grn.); in chron. diar., 1.3–2 Gm. (20–30 grn.) ev. 1–2 hrs.

Protargentum

Silver-protein (gelatin) comp'd; abt 8% Ag.—Chocolate-colored, odorl. powd.—SOL.: Readily but slowly W.; insol. A., oils.—ACTION: Antisep.; Bactericide.—USES: As of o. organ. silver prep'ns.—APPL.: 0.25%–0.5% aqu. solut. freshly prep'd & best made by sprinkling the powd. on cold W. without stirring.

Protargol

Silver-protein (albumin) comp'd; abt 8% Ag.—Light-brown powd.—SOL.: 2 W.—ACTION: Antisep.; Bactericide.—USES: *Intern.*, gastric carcinoma, gastric & intest. hemorrhages, acute gastric catarrh, diarrh., cystitis, tabes dorsalis.—*Extern.*, acute & chron. gonorr. & urethritis; ophthalmia in the new-born; dis. of mucous membranes of eye, ear, nose, & throat; conjunctivitis; wounds, &c.—DOSE: 0.2 Gm. (3 grn.) 3 t.p.d., & in acute cases 0.5 Gm. (8 grn.) 2–4 t.p.d.—APPL.: 0.25%–1% solut. in acute gonorr.; 5%–10% solut. in chron. cystitis & urethritis; 1–2:2000 solut. as irrigation; also as bougies & tampons (5%–10%).—VETER. MED., in bruises, wounds of the tendons & joints in 3% solut.; in nail prick a 10% solut.; in otitis, blennorrhoeic mucous catarrhs, a 5%–20% solut.—INCOMPAT.: Heavy Metals.—CAUT.: Keep dark; make soluts. w. cold W.

Protein

Pure plant proteid fr. aleuronat.—Horny mass or yellowish powd.—SOL.: Sltly W.—ACTION: Nutrient.—USES: Scrof., rachitis, &c.; also to incr. flow of milk.—DOSE: 0.3–1.3 Gm. (5–20 grn.) sev'l t.p.d.

PROTEIN HONI—see Pyocyaneus-Protein

PROTEINCHROMOGEN—see Tryptophan

PROTocatechin METHYL ESTER—see Guaiacol, Synthetic

PROTocatechuic ALDEHYDE METHYLENE ETHER—see Heliotropin

Protocotin

Piperonylphloroglucindimethyl Ester.—C₁₆H₁₄O₆ = 302.19.—Cryst. prin. fr. paracota bark.—Yellow cryst.—SOL.: A., C., E.—MELT.: 140° C.

PROTOLAC = CALCIUM CASEINATE

Protopine

Fumarine; Macleyin.—C₂₀H₁₉NO₅ = 353.26.—Alkaloid present in opium in minute amt.—Wh., cryst. powd.—SOL.: C., hot A.—MELT.: 207° C.—Not used medicinally.

Protylin

Wh., odorl., tastel. powd.—2.6% P.—SOL.: Alkaline fluids; insol. W.—ACTION: Nerve Tonic; Reconstructive.—USES: Convalesc. fr. typhoid, anemia, neurasthenia, rickets, scrofula, regulating dentition, osteomalacia, hysteria &c.—DOSE: 0.6–1.3 Gm. (10–20 grn.) 3 t.p.d.

PROVENCE ROSE—see Rose

Prune—N.F. V; B.P.C.

Partly dried, ripe fruit of *Prunus domestica*, L., Rosaceæ.—HABIT.: Asia Minor; Syria; cultiv. U. S., France, Germany, & other countries.—CONSTIT.: Chiefly dextrose (abt 40%), w. abt 2% malic, tartaric, & o. vegetable acids (B.P.C.).—ACTION: Mildly Lax.; Nutrient; Demulc.—USES: Prepar'g confections (senna, etc.); also as food & as a laxative.

PRUNIN—see Cerasin (Concentration)

PRUSSIAN BLUE—see Iron Ferrocyanide, Ferric, Insoluble

PRUSSIAN BLUE, SOLUBLE—see Iron Ferrocyanide, Soluble

PSEUDO-ACONITINE—see Aconitine fr. Aconitum Ferox

Pseudocodeine

C₁₈H₂₁NO₃ = 299.27.—An isomer of codeine.—Colorl. need.—SOL.: A.; sltly in W.—MELT.: 182° C.—Physiologically weaker than codeine.

α-Pseudoconhydrine

C₈H₁₇NO = 143.18.—Alkaloid fr. seeds of *Conium maculatum*, L.—Colorl. cryst.—SOL.: W., A.—MELT.: 100° C.—BOIL.: 230° C.—Less toxic than conhydrine.

PSEUDOCUMENE (or, -OL)—see *pseudo*-Cumene

Pseudocumidine

Aminoalphetrimethylbenzene.—(CH₃)₃[1:2:4]-C₆H₂NH₂[5] = 135.16.—Fr. xylidene & methyl A. by heat.—Wh. cryst.—SOL.: A., C., E.—MELT.: 63° C.—BOIL.: 234°–235° C.—USES: Manuf. ponceau dyes.

Pseudoephedrine

C₁₀H₁₅NO = 165.18.—Alkaloid fr. *Ephedra helvetica*, C. A. Meyer; isomeric w. ephedrine fr. *Ephedra vulgaris*.—Colorl. cryst.—SOL.: A., C., E.—MELT.: 115°–116° C.—ACTION: Mydriatic.

Pseudoephedrine Hydrochloride

C₁₀H₁₅NO.HCl = 201.65.—Yellowish cryst.—SOL.: W., A.—MELT.: 175°–176° C.—ACTION: Mydr.—APPL.: One or two drops of 10%–12% solut. Causes no inflammation, or disturb. of accommodation.

Pseudohyoscyamine

C₁₇H₂₃NO₃ = 289.28.—Alkaloid fr. lvs of *Duboisia myoporioides*, R. Br.—Yellowish

need.—SOL.: A., C.; sltly W., E.—MELT.: 133°–134° C.—ACTION: Sed.; Antispasm., &c.; like atropine, but weaker & more evanescent.—DOSES: For the sane, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.).—*Inj.*, for the insane, 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.).

PSEUDONARCEINE—see Narceine

Pseudopelletierine

Pseudopunicine; Methylgranatonine.— $C_9H_{15}NO + 2H_2O = 189.21$.—Alkaloid fr. root bark *Punica Granatum*, L. (Pomegranate).—Yellowish optically inactive cryst.—SOL.: W., A., C., E.—MELT.: 46° C.—Not a teniafuge.

Pseudopelletierine Hydrochloride

Pseudopunicine Hydrochloride.— $C_9H_{15}NO \cdot HCl = 189.64$.—Wh. cryst.—SOL.: W.

Pseudopelletierine Sulphate

Pseudopunicine Sulphate.— $(C_9H_{15}NO)_2 \cdot H_2SO_4 + 4H_2O = 476.49$.—Wh. cryst.—SOL.: W.

Pseudophysostigmine

Fr. Cali nuts or false Calabar bean (seed of a *Mucuna* species).—Action equal to that of physostigmine fr. *Physostigma venenosum*.—USES & DOSE: As of physostigmine.

PSEUDOPROPYL ALCOHOL, PRIMARY—see Alcohol *iso*-Butylic

PSEUDOPUNICINE—see Pseudopelletierine

Psicaine

d-ψ-Cocaine Bitartrate Merck.— $(COOH \cdot CH_2OH)_2 \cdot N(CH_3) \cdot C_7H_{10}(CO \cdot OCH_3) \cdot O \cdot CO \cdot C_6H_5 = 453.23$.—Wh., cryst., bitter powd.—SOL.: 4 W. (solut. v. stable, & may be sterilized by boil'g without decomp.); more diffic. sol. A.—ACTION: Loc. Anesthet.; abt twice as powerful as cocaine in action on nerve ends & nerve fibers, while anesthesia more rapid & detoxication in tissues also materially more rapid.—USES: In all cases where cocaine indicated, but partic. f. anesthetizing deeper tissues, & in investigations of & operations on the nose, throat, urethra, bladder, as also in gastroscopy.

Psicaine-N—Neutral

Psicaine Sodium Tartrate Merck.—Wh., deliques., cryst. powd.—SOL.: v. eas. W.—ACTION, USES, & DOSES: As of psicaine; partic. useful where a neutral psicaine solut. desired.

PSICAINE SODIUM TARTRATE—see Psicaine-N

Psilomelane—Mineral

OCCUR.: U. S.; England; Germany; British No. Bornea; Nova Scotia.—COMPOS.: Manganese manganite cont. some barium, = Braunitz w. BaO, besides some CaO, MgO, CuO, Al₂O₃, Fe₂O₃, etc.—CRYST. SYST.: Cryptocrystalline.—LUSTER: Submetallic to dull.—COLOR: Iron-black to dark-gray.—STREAK: Brownish or grayish-black, shining.—FRACT.: Smooth, conch.—OPAQUE.—HARDN.: 5–6.—SP. GR.: 3.7–4.7.—USES: Source of Mn.

Ptyalin

Amylolytic ferment fr. salivary glands of pigs.—Yellowish powd.—SOL.: G.; partly in W.—USES: Dyspep.; also to convert starch into dextrin & maltose sugar.—DOSE: 0.6–2 Gm. (10–30 grn.) sev'l t.p.d.

PUCCOON ROOT—see Sanguinaria

PUDDING-PIPE, or STICK—See Cassia Fistula

Pulegium

European Pennyroyal; Brotherwort; Flea Mint.—Herb of *Mentha Pulegium*, L., Labiatae.—HABIT.: Europe.—CONSTIT.: Volat. oil; tannin.—ACTION: Carmin.; Emmen.; Abortifac.—USES: Colds, asthma, hysteria, gout.—DOSE: 1–2 Gm. (15–30 grn.).

Pulmonaria

Lungwort; Spotted Lungwort.—Herb of *Pulmonaria officinalis*, L., Boraginaceae.—HABIT.: Europe.—CONSTIT.: Mucilage.—ACTION: Emoll.; Demulc.; Expector.; Pectoral.—USES: Pulmon. dis., hemopt., &c.—DOSE: Fl'dextr., 2–4 cc. (30–60 M).

Pulsatilla—N.F. V; B.P.C.; Fr. Cod.

Pasque Flower; Wind Flower; Meadow Anemone; Easter Flower.—Dried herb of *Pulsatilla vulgaris*, Miller, *P. pratensis*, Miller, or of *P. patens*, Miller, Ranunculaceae.—HABIT.: Europe; Asia.—CONSTIT.: Anemone camphor, eas. changed into anemonin & isoanemonin acid; volat. oil; bitter substce; tannin.—ACTION: Sed.; Anod.; Mydriatic; Diur.; Diaph.; Emmen.; Expector.; Vesicant; Emet.—USES: Syph., catarrhal inflam., dysmenor., ovaralgia, asthma, rheumat., coughs, coryza, orchitis, epididymitis, &c.—DOSE: 0.12–0.3 Gm. (2–5 grn.); aver. dose, 0.3 Gm. (5 grn.).—Alcoh. extr., 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); *Max. D.*: 0.12 Gm. (2 grn.) single, 0.4 Gm. (6 grn.) daily.—Liq. extr., 0.06–0.3 cc. (1–5 M); *Max. D.*: 0.3 cc. (5 M) single, 1 cc. (15 M) daily.—Tr. (1:10), 0.3–2 cc. (5–30 M).

PULSATILLA CAMPHOR—see Anemonin

Pumice—N.F. V—Pieces

A light, porous stone of volcanic origin.—OCCUR.: Chiefly Lipari Island, & Grecian Archipelago.—CONSTIT.: Chiefly complex silicates of Al, K, & Na.—USES: Abradant & polish; fireproofing & insulating comp'ds; in metal polishes; also in chem. anal. when impregnated w. dehydrating or o. substcs (H₂SO₄, CuSO₄, Pt, etc.).

PUMPKIN SEED—see Pepo

PUNICINE & SALTS—see under Pelletierine

PURE BLUE—see Soluble Blue

PURGING AGARIC—see Agaric

PURGING CASSIA—see Cassia Fistula

PURGING CROTON—see Croton

PURGING ROOT—see Euphorbia Corollata

PURPLE CLOVER—see Trifolium

PURPLE CONE FLOWER—see Echinacea

PURPLE COPPER—see Bornite

PURPLE FOXGLOVE—see Digitalis

PURPLE OF CASSIUS—see Gold-Tin Purple

Purpurine

Trioxanthraquinone; Isopurpurine; Anthrapurpurine.— $C_6H_4(CO)_2.C_6H(OH)_3[1:2:4] = 256.13$.—Fr. madder.—Brownish-yellow powd.—SOL.: A., w. yellow color; in alkalies w. red color; E.; v. stly cold, more eas. hot, W. Gives w. boil. sat. solut. alum a yellowish-red, strongly fluorescent stain.—MELT.: $253^{\circ} C$.—USES: As nuclear stain; also as test f. insol. Ca salts.—A reddish brown paste, in which form the product is also mkt'd, is used for dyeing cotton scarlet, & in manuf. various dyes.

PURSHIANA BARK—see Cascara Sagrada

PUSSY WILLOW—see Willow, Black

PUTTY POWDER—see Tin Oxide, Gray

Pyelon

A stable colloidal silver iodide in solid form.—35% AgI.—USES: As contrast substance for Roentgen-ray examination of the urinary passages.—Is sol. by shak'g w. boil. W.; a 10%–20% solut. f. use is made using a 1:5000–10000 boil. solut. mercury oxycyanide & shak-ing vigorously.

Pyocyanase

A prod. obt'd by autolysis of bacterial proteids fr. bacillus pyocyanus. The prep. is capable of dissolv. this bacillus, as well as o. bacteria, e.g. of anthrax, diphth., &c.—USES: Ulcers of leg, purul. inflam. of upper jaw, diphth., cerebrospinal meningitis, diphth., cholera, typhoid, anthrax; purul. middle ear dis.—APPL.: Loc. in ulcers, &c.; in diphth., 3–4 cc. (45–60 M) sprayed into larynx, or as loc. applic. as wash, paint, etc.

Pyocyaneus-Protein

Protein Honl.—Extract fr. cultures of bacillus pyocyanus.—Greenish, stly alkaline liq.—USES: As a brush applic. in ulcer of leg, purul. inflam. of upper jaw, mouth, larynx, & pharynx, diphth., &c.

Pyoktanin—Blue

Penta- & Hexa-methylpararosaniline Hydrochloride Merck; Methylosaniline, B.P.C.—Dark-green, nearly odorl. cryst. powd.; solut. v. diffusible in animal fluids.—SOL.: C., 12 A. (90%), 50 G.; 30 boil., 50 hot, & 75 cold, W.; insol. E.—ACTION: Antipyric; Antisep.; Disinf.; Analg.—USES: Intern., malignant neoplasms of internal organs, in pyloric carcinoma, cardiac ascites.—Extern., in diphth. as sat. solut. on brush or cotton; tonsil., aphthous stomatitis, severe anginas; 2% dust. powd. or 10% oint. in ulcers, wounds & malign. growths; malign. neoplasms; varicose ulcers; 5% solut. in palpebral epithelioma; 1–2:1000 solut. as urethral inj. in blenorrrh.; ulcers of mouth & throat; fungous granulat.; also in malign. & rodent ulcer, as well as in ophthalmiatric & otiatric practice, gonorrh., leucor., burns,

inflam., wounds, malignant & syphilitic neoplasms, conjunctivitis, &c. Powder is applied pure, or in 1:1000–100 solut. In purulent otitis media, insuffl. of 1 pyoktanin w. 10 powd. boric acid. Unexcelled in veter. practice, & has specific healing effect in foot-&-mouth-dis. of cattle. Partic. useful in vaginal catarrh in cattle using a mixt. 1 part P. w. 4 parts alum.—DOSE: 0.06–0.3 Gm. (1–5 grn.) in caps., at first once daily, then 2, finally 3 t.p.d.—MAX. D.: 0.6 Gm. (10 grn.) single 1.3 Gm. (20 grn.) p.d.—INJ., in carcinoma, 5–12 cc. (75–180 M) of 1% aq. solut.—INCOMP.: Alkalies; $HgCl_2$.—CAUT.: Keep solut. in amber bot. & use only when recent.—NOTE: Stains on linen may be removed by washing w. sodium carbonate solut., or soap, or A.

do. —Pencils, Large, in handles

USES: Minor surgery, in cuts, sinuses, ulcers, steriliz. recent wounds, purulent wounds & ulcers, burns, inflam. of matrices of nails, veter. practice, &c.

do. —Pencils, Small, in claspholders

USES: Sterilizing corneal ulcers.

Pyoktanin—Yellow

Imino-tetramethyldiaminodiphenylmethane Hydrochloride Merck; Apyonine; Medicinal Auramine.—Yellow powd.; somewh. resembling sulphur.—SOL.: W., A.—ACTION: Antisep.; Disinf.—USES: Considerably weaker than the blue, & principally employed in dis. of skin & in ophthalmiatric practice.—DOSE: 0.06–0.5 Gm. (1–8 grn.).—MAX. D.: 1 Gm. (15 grn.).

do. —Pencils, Large, in handles

USES: Cuts, sinuses, ulcers, &c.

do. —Pencils, Small, in claspholders

PYRACETOSALYL—see Pyrosal

PYRALIN—see Celluloid

PYRALOXIN—see Pyrogallol, Oxidized

PYRAMIDON = Amidopyrine

Pyramidon Camphorate—Acid

Amidopyrine Bicamphorate.— $C_{13}H_{17}N_3O.C_{10}H_{16}O_4 = 431.40$.—Wh., cryst. powd.—SOL.: W. w. grad. decomp.; 4 A.—MELT.: Abt 92° – $94^{\circ} C$.—ACTION: Antihidrotic & Antipyr.—USES: Chron. febrile conditions, & in phth. to relieve excessive sweating.—DOSE: 0.5–1 Gm. (8–15 grn.).

do. —Neutral

$(C_{13}H_{17}N_3O)_2.C_{10}H_{16}O_4 = 662.63$.—Wh., cryst. powd.—SOL.: 15 W., 2 A.—MELT.: Abt 80° – $90^{\circ} C$.—ACTION: Antipyr.—USES: Chron. febrile conditions, phth., &c.—DOSE: 0.5–0.75 Gm. (8–12 grn.).

Pyramidon Salicylate

$C_{13}H_{17}N_3O.C_7H_6O_3 = 369.31$.—Wh., cryst. powd.—SOL.: 16 W., 5–6 A.—MELT.: (In-

definitely) at 68°–70° C.—ACTION: Antirheum.; Antineural.—USES: Acute & chron. artic. rheum., gout, neuralg.—DOSE: 0.5–0.75 Gm. (8–12 grn.).

PYRAZINE—see Antipyrine

PYRAZINE HEXAHYDRIDE—see Piperazine

PYRAZOLINE—see Antipyrine

Pyrethrum—U.S.P. IX; B.P.

Pellitory; Spanish Pellitory; Spanish Chamomile; Bertram; Longwort.—Dried root of *Anacyclus Pyrethrum*, De C., Compositæ.—HABIT.: North Africa.—CONSTIT.: Volat. oil; pyrethrine; inulin (abt 50%, B.P.C.).—ACTION: Sialag.; Rubefac.—USES: Neural., toothache, rheum., relaxed uvula, &c.; root also chewed.—DOSES: 1–2 Gm. (15–30 grn.); aver. dose, 2 Gm. (30 grn.).—Alcoh. extr., 0.25–0.5 Gm. (4–8 grn.).

Pyrethrum Flowers—B.P.C.

Flowers of *Chrysanthemum* (*Pyrethrum*) *cinerariæfolium*, Vis., & of *C. coccineum* (roseum) Willd., Compositæ.—HABIT.: Dalmatia; Montenegro; Western Asia.—CONSTIT.: Volat. oil (abt. 1.25%); pyrethrone; chrysanthemic acid; pyretol; pyrethrotoxic acid; pyrethrosin; chrysanthemine.—USES: Insecticide (Dalmatian & Persian insect powder).

Pyridine Merck—C.P.

C_5H_5N = 79.07.—Fr. animal & vegetable nitrogenous substcs by dry dist'n.—Color: liq.; disagreeable odor; sharp taste.—Misc.: W., A., C., E., benzin, fatty oils, &c.—SP. GR.: 0.988 at 15.5° C.—BOIL.: 117° C. (anhydr.).

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.02%
Chloride (Cl).....	0.000%
Sulphate (SO ₃).....	0.005%

USES: *Chem.*, as solvent f. anhydrous mineral salts; also as test f. acetone (*Blumenthal-Neuberg*), & blood (*Bürker*; *Csépai*; *Domenicis*; *Donogany*; *Fürth*, *Leers*; *Lochte*; *Puppe*; *Stoll*).—*Medic.*, as respiratory Sed.; *Antigonor.*; *Antisep.*; in asthma, angina pectoris, dyspnea, whoop-cough, diphth., gonorrh., &c.; contraindic. in heart weakness.—DOSE: 0.12–0.6 cc. (2–10 M) sev'l t.p.d. in W.—Us'y by inhalation, 3–5 cc. (45–75 M), evap. spontaneously in room, the inhalations, lasting ½ hr ea., being repeated 3 t.p.d.—*Extern.*, as urethral inj. in 0.3% solut., & as paint in diphth. in 10% solut.

do. —Bases

Mixt. of various bodies result. fr. the dry distil. of nitrogenous hydrocarbons.—USES: Denaturing alcohol; assistant in dyeing; as gen'l solvent, & in manuf. rubber, paints, varnishes, varnish removers; denitrating incandesc. mantles.

PYRIDINE- β -CARBOXYLICACID DIETHYLAMIDE—see Coramine

PYRIDINE CHLORMETHYLATE—see Pyridine Methylchloride

Pyridine Citrate

$C_5H_5N.C_6H_5O_7$ = 271.17.—Wh. powd.—SOL.: W., A.

Pyridine Methylchloride

Pyridine Chlormethylate.— $C_5H_5N.CH_3Cl$ = 129.56.—Wh. cryst. need.—SOL.: W. A.

Pyridine Nitrate

$C_5H_5N.HNO_3$ = 142.09.—Wh. cryst.—SOL.: W., A.

Pyridine Sulphate

$C_5H_5N.H_2SO_4$ = 177.15.—Deliq., wh. cryst.—SOL.: W., A.

Pyridium

Phenylazo- α - α -diaminopyridine Hydrochloride.—Fine, brick-red, microcryst. powd.—SOL.: 100–200 cold, more eas. hot, W.; A., G., petrolatum, lanum, etc.—ACTION: Powerful Bactericide (partic. f. cocci); Genitourinary Antisep.; stimulates proliferation of epithelial cells.—USES: *Intern.*, gonorrh., cystitis, pyelitis, pyelocystitis, & var. gynecol. dis.—*Extern.*, as nonirritant appl. to wounds & ulcers, as 10%–25% paste or wet dressing; abscesses may be infiltrated w. a 0.3%–1% solut. after puncturing & removing pus.—DOSE: 0.4–0.75 Gm. (6–12 grn.) per day, best in tabl. of 0.1 Gm. (1½ grn.) ea. as mktd.—NOTE: Pyridium is quickly excreted unchanged via the urine, which rapidly becomes sterile and acquires an orange, red, or dark red color. Occasionally, where the urine is alkaline, the color will not show, positively, but will develop at once on the addition of a few drops of a mineral acid. Penetrates into tissues & organs, partic. those of the genitourinary tract.

Pyrimidine

$HC[N(1:3)CH]_2CH$ = 80.17.—Cryst. mass; penetr. odor.—SOL.: W., A.—MELT.: Abt 22° C.—BOIL.: Abt 124° C.

Pyrite—Mineral

Iron Pyrites.—OCCUR.: Largest deposits in Spain, but abundantly in v. many countries.—COMPOS.: FeS_2 .—CRYST. SYST.: Reg. pentag. hemih.—LUSTER: Metallic.—COLOR: Pale to full brass color; tarnishes iridesc. to brown.—STREAK: Greenish-black.—FRACT.: Conch. to uneven.—BRITTLE.—HARDN.: 6–6.5.—SP. GR.: 4.95–5.1.—USES: v. largely in manuf. H_2SO_4 , fum. H_2SO_4 , $FeSO_4$, colcothar, iron, liquid SO_2 , etc.; in the sulphite process f. making paper pulp.

Pyrocatechin Merck—Resublimed

Orthodioxibenzene; Pyrocatechuic or Oxyphenic Acid; Catechol.— $C_6H_4(OH)_2[1:2]$ = 110.08.—Found naturally in var. plants, & in distil'n products of kino, catechu, etc. but us'y obt'd fr. guaiacol & KI by heat.—Wh. cryst.—SOL.: W., A., B., C., E.—MELT.: 104° C.—BOIL.: 240°–245° C., B.P.C.—ACTION: Antisep.; Antipyr.—USES: *Extern.*, solut. & oint. f. wounds, burns, &c.—*Techn.*, in photography, & in manuf. epinephrine.

PYROCATECHINDIMETHYL ESTER—see Veratrole

PYROCATECHINMONOMETHYL ESTER—see Guaiacol

PYRODIN—see Acetylphenylhydrazine

Pyrogallol Merck—C.P.—Cryst.

Acid Pyrogallic; Trihydroxybenzene; Vicinal Trioxybenzene.— $\text{CH}_3(\text{OH})_3$ [1:2:3] = 126.08.—Wh., light, lustr. cryst.—SOL.: 1.7 W., 1 A., 1.5 E.; diffc. in B., C., CS_2 . Aqu. solut. darkens on expos. to air.—MELT.: 131° – 133° C.—Sublimes when cautiously heated.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Chloride (Cl).....	0.002%
Galic Acid.....	None
Sulphate (SO_3).....	0.010%

USES: Active reducer (f. salts of Au, Ag, & Hg, even in the cold); in gas anal. as absorber of O; determ. HNO_3 & HNO_2 ; reag. f. Cu (Aliamet; Cailletet), propeptone (Axenfeld), HNO_3 (Curtmann; Horsley; Rosenfeld), lignin (Czapek), Au (Donau), chloral hydrate (Gabutti), CO in blood (Landois), diastase (Neumann-Wender), sulphonol (Ritsert), HNO_2 (Rosenfeld; Schönbein; Weyl), sesame oil (Tocher), oxygen (Winkler), lignified cell membrane (Warnecke).

do. Merck—U.S.P. X—Resublimed, or Cryst.

DESCRIPT.: As of the preced'g—SOL.: 1.7 W., 1.3 A., 1.6 E., at 25° C. Aqu. solut. darkens on expos. to air.—MELT.: 130° – 133° C.—When cautiously heated sublimes without residue.—USES: *Extern.*, in psoriasis, lupus, & o. skin dis. in 1%–10% oint.; tuberculous cystitis, chron. prostatitis (instil. 2–4 cc. of 2% aqu. solut.), & chron. urethritis.—*Techn.*, efficient developer in photography; hair dye; in cosmetics, manuf. gallein, gas analysis, making colloidal soluts of metals, &c.; also as mordant f. wood, staining leather, process engraving; manuf. various azo dyes & intermediates; dyeing furs, hair, etc.—INCOMPAT.: Alkalies, NH_3 , antipyrine, camphor, phenol, FeCl_3 , I, lead acetate, lime-water, menthol, KMnO_4 .—CAUT.: Poisonous! Prone to discolor on expos. to light & air, hence keep well stoppered in the dark.

PYROGALLOL MONACETATE—see Eugallol

Pyrogallol Oxidized—B.P.C.

Acid Pyrogallic Oxidized; Pyrogallol Oxide; Pyraloxin.—Oxidation prod. obt'd by act. of air & NH_3 on pyrogallol.—Brownish-black to pure black, lustr. powd.—SOL.: Alkalies; alm. insol. W.; insol. abs. A., E.—Recomm. by Unna as stable & efficient succedaneum for pyrogallol, & free fr. toxic & irrit'g effects of latter.—USES: *Intern.*, inst. of chaulmoogra oil, in leprosy.—*Extern.*, psoriasis, chron. ecz., lupus erythemat., leprosy, chron. conjunctivitis, & dis. of mucous membranes of nose & larynx.—DOSE: 2.5 Gm. (40 grn.) p.d. in lemonade.—APPL.: 10% oint.; in chron. conjunctiv. in 0.1%–0.5% solut.; in

leprosy, 10% oint. w. 0.5%–7% salicylic acid added.

PYROGALLOL TRIACETATE—see Lenigallol

PYROGALLOL TRIMETHYLESTER—see Trimethylpyrogallol

PYROGALLOLPHTHALEIN—see Gallein

PYROLA—see Chimaphila

PYROLIGNEOUS VINEGAR—see Acid Pyroligneous

PYROLUSITE—see Manganese Dioxide, Native

Pyrolusite—Mineral

OCCUR.: Caucasus; Brazil (chiefly); India; U. S.; Europe.—COMPOS.: MnO_2 (60%–90%).—CRYST. SYST.: Tetragon.—LUSTER: Metallic to dull.—COLOR: Black to dark steel gray.—STREAK: Black; often sooty.—HARDN.: 2.0–2.5.—SP. GR.: 4.75–4.86.—USES: *Techn.*, manuf. Cl, ferromanganese; oxidizing agent in chem. industry; manuf. colored glass, varnish driers, manganese & Mn salts; in fertilizers; in dry cells.

PYROMUCIC ALDEHYDE—see Furfural

Pyrophorous Alloy

Spark Metal; Ferro-cerium; Auer Metal.—An alloy of 30% Fe & 70% Ce, which, when scratched w. a file or knife-blade, emits a shower of sparks capable of eas. igniting tinder, inflammable gases, & wicks satur. w. A., hence used f. cigar lighters, etc. Accord. to Auer von Welsbach, the discoverer, o. iron alloys (e.g. w. La) also possess this property; & the Fe may be replaced in part by Ni, Co, or Mn.

Pyropissite—Mineral

OCCUR.: With lignites.—COMPOS.: Like that of ozokerite (abt 70% bituminous wax).—Light-gray mass.—USES: Source of ceresin.

Pyrosal

Pyracetosalyl; Antipyrine Salicylacetate, or Acetylsalicylate.— $\text{C}_9\text{H}_8\text{O}_5 \cdot \text{C}_{11}\text{H}_{12}\text{N}_2\text{O} = 384.28$.—Wh. cryst. powd.; acid taste.—SOL.: W., A.—ACTION: Antipyr.—USES: Pleurisy, polyarthrits, migraine, neuralg., sciatica, rheum., &c.—DOSE: 0.5–1 Gm. (8–15 grn.).

PYROSULPHURIC OXYCHLORIDE—see Pyrosulphuryl Chloride

Pyrosulphuryl Chloride

Disulphuryl Chloride; Pyrosulphuric Oxychloride; Chlorosulphonic Anhydride.— $\text{S}_2\text{O}_5\text{Cl}_2 = 215.04$.—Colorl., mobile, v. refract., fum. liq.—SP. GR.: 1.819 at 18° C.—Decomp. by W.—BOIL.: 146° C.

Pyroxylin—U.S.P. X; B.P.

Collodion Cotton; Colloxylin; Soluble Gun Cotton; Xyloidin; Collodion Wool.—Fr. purif. cotton, by HNO_3 + H_2SO_4 ; consists chiefly of cellulose tetranitrate, $\text{C}_{12}\text{H}_{16}(\text{ONO}_2)_4\text{O}_8 = 504.22$.—Yellowish-wh., flossy substce; poss. physical appearance of raw cotton; highly inflamm.—SOL.: 25 parts of a mixt. of 1 vol. A. & 3 vol. E.; also in acetone, glac. acetic acid, U.S.P.; 25 parts mixt. eq. vol. E. & A. (90%),

B.P.: methyl A., amyl acetate, B.P.C.—USES: Surg., photo., & techn. chiefly in manuf. colloids.—CAUT.: Can be shipped w. safety only when wet w. 25%–30% W.; should be preserved, *loosely packed*, in cartons, & protected fr. light & moisture.

PYRRHOTINE—see Pyrrhotite

Pyrrhotite—Mineral

Pyrrhotine; Magnetic Pyrites.—OCCUR.: Germany; Austria; Bohemia; England; France; Italy; Sweden; Spain; Russia; U. S.; Canada.—COMPOS.: $\text{Fe}_{11}\text{S}_{12}$.—CRYST. SYST.: Hexag.—LUSTER: Metallic.—COLOR: Brownish or bronze-yellow.—STREAK: Grayish-black.—FRACT.: Uneven; Brittle.—HARDN.: 3.5–4.5.—

SP. GR.: 4.58–4.64.—Magnetic.—USES: Manuf. Fe_2SO_4 , fum. H_2SO_4 , caput mortuum, etc.

Pyrrol

Imidol.— $\text{C}_4\text{H}_4\text{NH}$ = 67.07.—Obt. fr. bone-tar oil.—Colorl. liq. when freshly distil., but becom. yellow in a few days, finally dark-brown; empyreum. odor.—SOL.: Eas. A., B., E.; insol. W.—SP. GR.: 0.92–0.97 at 15° C.—BOIL.: 130° C.—USES: Test f. lignin (Ihl; Czapek; Runge), & aldehydes (Ihl; Sobolewa).

Pyrrol Red

$\text{C}_{12}\text{H}_{14}\text{N}_2\text{O}$ = 202.19.—Brownish-black, amorph., insol. powd.

PYRROL TETRIODIDE—see Iodol

Q

QUAKER BUTTONS—see Nux Vomica

Quartz—Mineral

COMPOS.: SiO_2 .—CRYST. SYST.: Hexagon. trapezohedr. tetartohedr.—LUSTER: Splendent to nearly dull vitr.; somet. greasy.—COLOR: Colorl. or wh. when pure; various colors when impure.—STREAK: Wh.—FRACT.: Conch. when cryst.; uneven when massive.—Transp.—HARDN.: 7.—SP. GR.: 2.653–2.66 (cryst.).

QUARTZ-PORPHYRY—see Porphyry

Quassia—U.S.P. X; B.P.

Bitter Ash; Bitterwood Tree.—Wood (bark also used, but not official) of *Picrasma excelsa* (Swartz) Planchon, Jamaica Quassia, or of *Quassia amara*, L., Surinam Quassia, Simarubæ.—HABIT.: Jamaica; West Indies generally; Central America.—CONSTIT.: Wood: Picrasmin; quassin; quassol; alkaloid; resin; mucilage; pectin.—Bark: Quassin; alkaloid; resin; pectin; (*Quassia amara* contains 4 bitter principles; *Picrasma excelsa* contains only 2); quassol.—ACTION: Tonic Bitter; Febrif.; Anthelmint.; Antiparasitic.—USES: To stimulate digestive organs & create appetite; chron. constip., worms & fever.—Techn., as fly poison, & as surrogate f. hops.—DOSE: Wood: 1–2 Gm. (15–30 grn.), us'y as decoct. or tinct.; aver. dose, 0.5 Gm. (8 grn.).—Aqu. extr., 0.2–0.3 Gm. (3–5 grn.).—Fl'dextr., 0.3–1 cc. (5–15 M).—Tr. (1:5), 2–4 cc. (30–120 M), aver. dose, 2 cc. (30 M), & (B.P., 1:10) 2–4 cc. (30–60 M).—Bark: 1–2 Gm. (15–30 grn.).

QUASSIN—see Quassia

Quassin—Purest—Cryst.

Picrasmin; Quassin.— $\text{C}_{10}\text{H}_{12}\text{O}_3$ = 180.15.—Bitter prin. fr. *Picrasma excelsa* (Jamaica Quassia).—Wh., opaque, intens. bitter cryst.—SOL.: Eas. A., abt 2 C., abt 1200 W., in B. & caustic alkalies, & sltly in E. & petrol. E., B.P.C.—MELT.: Abt 210° C.—ACTION: Bitter Tonic; Stimulant; Appetizer.—USES: Digestive disturbances, nausea, vomit'g, diarrh., gastric pains, gout, dropsy, chlorosis, etc.—DOSE:

0.002 ($\frac{1}{30}$ grn.), grad. incr. to 0.02 Gm. ($\frac{1}{3}$ grn.).

do. Merck—Purified—Powd.

Mixt. of quassins.—Light-brown lumps or fine brownish-yellow powd.—SOL.: A.—ACTION & USES: As of preced'g.—DOSE: 0.03–0.06 Gm. ($\frac{1}{4}$ –1 grn.).

Quebrachamine

$\text{C}_{19}\text{H}_{26}\text{N}_2$ = 282.32.—Fr. bark of *Aspidosperma* Quebracho-blanco, Schlecht.—Wh. to yellowish cryst., bitter leaflets.—SOL.: A., B., C., E.—MELT.: 142° C.—Not used medic.

Quebrachamine Sulphate

Wh. to yellowish cryst.—SOL.: W., A.

Quebrachine

$\text{C}_{21}\text{H}_{26}\text{N}_2\text{O}_3$ = 354.33.—Fr. bark of *Aspidosperma* Quebracho-blanco, Schlecht.—Colorl. to yellowish, bitter cryst.; darken on expos.—SOL.: C., hot A., hot E., amyl A.—MELT.: 214°–216° C., w. decomp.—ACTION: Antiper.; Tonic.—USES: Asthma & dyspnea fr. heart dis.—DOSE: 0.06–0.12 Gm. (1–2 grn.) sevl t.p.d.

Quebrachine Hydrochloride—Amorphous

Fr. total alkaloid of bark of *Aspidosperma* Quebracho-blanco.—Brownish, amorph. powd.—SOL.: W., A.—USES: Asthma, dyspnea, emphysema, bronchial affect. mitral insuff., dropsy, pleuritis, etc.—DOSE: Uncertain; 0.001–0.1 Gm. ($\frac{1}{100}$ – $\frac{1}{2}$ grn.) is the range stated in literature.

do —Cryst.

$\text{C}_{21}\text{H}_{26}\text{N}_2\text{O}_3 \cdot \text{HCl}$ = 390.80.—Wh. to yellowish cryst.—SOL.: Sltly W., A.—DOSE: 0.05–0.1 Gm. ($\frac{3}{4}$ – $\frac{1}{2}$ grn.).

QUEBRACHO—see *Aspidosperma*

Quebracho Colorado

Red Quebracho.—Wood of *Loxopterygium* Lorentzii, Grisebach, Anacardiaceæ.—HABIT.: Argentine Republic.—CONSTIT.: Tannin; coloring matter; loxopterygine.—ACTION: Antasth-

matic; Astring.; Antispasm., in dysent. & asthma.—USES: As of aspidosperma, but is weaker in action.—*Techn.*, in dyeing, & tanning.—DOSE: 0.5–2 Gm. (8–30 grn.).—Aq. extr., 0.2–0.3 Gm. (3–5 grn.).

QUEEN'S ROOT—see Stillingia

QUEENSLAND ASTHMA-WEED—see Euphorbia

Quercetin

Meletin; Quercetic Acid.— $C_{15}H_{10}O_7 + 3H_2O = 356.20$.—Fr. quercitrin by H_2SO_4 .—Yellow, cryst. powd.—SOL.: In alk. solut.; sltly in W.—USES: Dye.

QUERCIMELIN—see Quercitrin

Quercit

So-called "Acorn Sugar."— $C_6H_7(OH)_5 = 164.13$.—Found in the fruit of var. *Quercus spec.*—Colorl., sweet cryst.—SOL.: W.—MELT.: $235^\circ C$.

QUERCITANNIN—see Acid Quercitannic

Quercitrin

Quercimelin; Quercitrinic Acid.— $C_{21}H_{22}O_{12} + 2H_2O = 502.31$.—Glucosidal yellow color. matter fr. decorticated bark *Quercus tinctoria*, Bartram (Black Oak).—Yellow, cryst. powd.—SOL.: A., amyl A., alk. solut., acetic acid; sltly W.—MELT.: $168^\circ C$, w. decomposition.—ACTION: Astring.; Tonic.

Quercus—N.F. V

White Oak.—Dried inner bark of trunk & branches of *Quercus alba*, L., Fagaceae, N. F.; smaller branches & young stems of *Q. robur*, L. (British Oak), Cupuliferæ, B.P.C.—HABIT.: *White oak*: Eastern U.S. & Canada; *British oak*: Europe & Western Asia.—CONSTIT.: Quercitannic acid; oak-red; resin; pectin; levulin; quercit; ellagic acid; gallic acid.—ACTION: Astring.; Tonic; Antiper.—USES: Catar. diar., marasm., intermit. fever, leucor., &c.—DOSE: Extr., 0.3–2 Gm. (5–30 grn.); aver. dose, 1 Gm. (15 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

QUEVENNE'S IRON—see Iron by Hydrogen, Gray

QUICK GRASS—see Triticum

QUICK LIME—see Calcium Oxide

QUICKSILVER—see Mercury, Redistilled

Quietol

Valeryloxybutyrein Hydrobromide.— $CO_2C_3H_7(CH_3).CO.CO.C_4H_9.CH_2N(CH_3)_2.HBr = 354.22$.—Wh., bitter cryst.—SOL.: Eas. W. & A.—MELT.: $119^\circ C$.—ACTION: Nerve Tonic; Antineuralgic.—USES: Headache, migraine, vertigo, insomnia, convulsions, chorea, painful menstruation, menopause, & heart palpitation.—DOSE: 0.5 Gm. (8 grn.) 2–4 t.p.d.

QUILLAIA—see Quillaia

Quillaia—N.F. V; B.P.

Soap Bark; Quillaia; Panama Bark; China or Murillo Bark.—Inner dried bark of *Quillaia*

Saponaria, Molina, Rosaceae.—HABIT.: South America (Peru; Chile); cultiv. in Northern Hindustan.—CONSTIT.: Quillaiaic acid; quillaia-sapotoxin; sucrose; tannin.—ACTION: Expect., Stim.; Diuret.; Irrit.; Detergent; Sternut.—USES: *Intern.*, in bronch.—*Extern.*, chron. ulc., eczema, hyperidrosis, & skin dis.—*Techn.*, in manuf. of sapotoxin, saponin, & quillaiaic acid; also in mineral-water industry, shampoo liquids &c., as foam producer.—DOSE: 1–2 Gm. (15–30 grn.) us'ly as infus.—Aq. extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr., 1–2 cc. (15–30 M).—Tr. (1:20) 2–4 cc. (30–60 M).

Quinaldine

Alphamethylquinoline; Chinaldine.— $CH_3C:N$. $C_6H_4.CH:CH = 143.13$.—Fr. aniline, paraldehyde, & HCl, by heat.—Oily, yellowish liq.; quinoline odor; darkens to reddish-brown in air.—SOL.: C., E.; insol. in W.—SP. GR.: 1.052 at $15^\circ C$.—BOIL.: $248^\circ C$.—Physiolog. action like that of quinoline but weaker.

Quinaldine Sulphate

$C_{10}H_9N.H_2SO_4 = 241.21$.—Light-yellow, cryst. powd.—SOL.: Eas. W.—MELT.: $211^\circ - 213^\circ C$.

QUINALDYLENEPHTHALID—see Quinoline Yellow

QUINALGEN—see Analgen

Quinaphthol

Quinine Betanaphthol- α -monosulphonate; Chinaphthol.— $C_{20}H_{24}N_2O_2.(OH.C_{10}H_6.SO_3H)_2 = 772.66$.—Yellow, cryst. powd.; 42% quinine.—SOL.: Hot A.; diffic. boil. W. & cold A.—MELT.: $185^\circ - 186^\circ C$.—ACTION: Antipyr.; Intest. Antisept.—USES: Typhoid, intest. tuberc., dysent., acute artic. rheumat., &c.—DOSE: 0.3–1 Gm. (5–15 grn.) single; 2–3–5 Gm. (30–45–75 grn.) p.d.

QUINCE, BENGAL, or INDIAN—see Bael

Quince Seed—B.P.C.

Seed of *Cydonia vulgaris*, Pers. (*Pyrus Cydonia*, L.), Rosaceae.—HABIT.: Southern Asia; Europe; widely cultiv.—CONSTIT.: Amygdalin; emulsin; fatty oil (abt 15%); mucilage (cydonin; abt 20%); proteins.—ACTION: Demulcent.—USES: Partic. in eye lotions; also in face & hand lotions & creams.

Quinetum

Chinetum.—Mixture of alkaloids in varying proportion as they occur naturally, fr. bark *Cinchona succirubra*, Pavon.—Amorph., grayish-wh. to brownish powd.; 50%–70% of cinchonidine w. quinine, cinchonine, & amorph. bases.—SOL.: Dil. acids; sltly in W.—ACTION: Antiperiodic.—USES: Malaria & intermit. fevers.—DOSE: 0.06–1 Gm. (1–15 grn.).

Quinetum Sulphate

Neutral sulphate of preceding.—Grayish-wh. to brownish powd.—SOL.: W.—USES & DOSES: As of Quinetum.

Quinhydrone

Green Hydroquinone.— $\text{C}_6\text{H}_4(\text{OH})_2$. $\text{C}_6\text{H}_4\text{O}_2 = 218.14$.—Green cryst. w. metal, luster; reddish brown by transmitted light.—**SOL.**: Hot W., A., E.

QUINIC-ACID ANHYDRIDE—see Sidonal "New"

Quinidine Merck — Alkaloid — N.F. V—Cryst. Gran., or Precip.

Chinidine; Conchicine; Beta-quinine; Cinchotine; Chinotine; Pitayin.— $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 = 324.31$.—Alkaloid isomeric w. quinine, & obt'd fr. var. spec. of Cinchona.—Wh. cryst. or amorph. powd.—**SOL.**: *Cryst.*, abt 32 A., 53 E., & 1.5 C., at 25° C., & v. sltly in petrol. benzin, & alm. insol. W., N.F.—**MELT.**: Abt 168° C.—**ACTION**: Antiper.; Antipyr.; Antisep.; Tonic.—**USES**: Inst. of quinine (but somewhat weaker in action) in remit. & intermit. fevers, espec. of childr.; has been recommended in auricular fibrillation. Salts less agre. to take, but more prompt in action.—**DOSE**: *Tonic*, 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.), aver. dose, 0.1 Gm. ($\frac{1}{2}$ grn.).—*Antiper.*, 1.3–2 Gm. (20–30 grn.).—*Antimalarial*, aver. dose, 1 Gm. (15 grn.) p. day.—For a cold, 0.3–0.6 Gm. (5–10 grn.).—In *auricular fibrillation*, 0.2 Gm. (3 grn.) to first determine any possible idiosyncrasy & then 0.4 Gm. (7 grn.) 3 t.p.d. at first, then 4–5 t.p.d.—**MAX. D.**: 2.5 Gm. (40 grn.).

Quinidine Bisulphate

Acid Quinidine Sulphate.— $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{H}_2\text{SO}_4 + 4\text{H}_2\text{O} = 494.45$.—Colorl., bitter cryst.—**SOL.**: 8 W., w. fluoresc.—**DOSE**: 0.3–1 Gm. (5–15 grn.).

Quinidine Citrate

Wh. cryst.—**SOL.**: A.—**DOSE**: 0.1–0.8 Gm. ($\frac{1}{2}$ –12 grn.).

Quinidine Hydriodide

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{HI} = 452.24$.—Wh. gran. powd.—**SOL.**: Abt 1250 W., v. diff. A.—**CAUT.**: Keep well stoppered & protected fr. light.

Quinidine Hydrobromide

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{HBr} = 405.24$.—Wh. cryst.—**SOL.**: W., A.

Quinidine Hydrochloride Merck

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{HCl} + \text{H}_2\text{O} = 378.79$.—Wh., lustr., acic. cryst., or cryst. powd.—**SOL.**: Abt 60 cold, freely in hot, W.; A., C.; sltly E.—**ACTION**, **USES**, & **DOSES**: As of quinidine alkaloid.

Quinidine Nitrate

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{HNO}_3 = 387.33$.—Colorl. cryst.—**SOL.**: Abt 85 W.

Quinidine Sulphate Merck—U.S.P. X

$(\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2)_2 \cdot \text{H}_2\text{SO}_4 + 2\text{H}_2\text{O} = 782.72$.—Fine, wh., v. bitter, odorl. needles.—**SOL.**: Abt 90 cold, 15 boil., W.; 10 A., 15 C.—**ACTION**: Antiper.; Antipyr.; Antisep.; Tonic.—**DOSE**: As *tonic*, 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.) 3 t.p.d.; as *antiper.*, 1–4 Gm. (15–60 grn.); in *coryza*, 0.3–

0.6 Gm. (5–10 grn.); aver. dose 0.3 Gm. (5 grn.) 4 t.p.d.; in *auricular fibrillation*, a first dose of 0.2 Gm. (3 grn.) to ascertain any possible idiosyncrasy, then 0.4 Gm. (7 grn.) 3 t.p.d. for 2 or 3 days or more.—In *VETER. MED.*, like the tannate.—**CAUT.**: Prone to cause collapse in children, hence give cautiously.—**NOTE**: Darkens on exposure to light.

Quinidine Tannate

Amorph., yellow powd.—**SOL.**: A., dil. acids; insol. W., E.—**ACTION**: Antipyret. (partic. useful f. children).—**USES**: Dyspep., diar., albumin., malaria.—**DOSE**: 0.2–0.8 Gm. (3–12 grn.); in diarrh. & whoop-cough in children, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) sev'l t.p.d.—*VETER. MED.*, erysip. of swine, 1.6 Gm. (25 grn.) 3 t.p.d.

Quinine Merck—Alkaloid—U.S.P. X

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 + 3\text{H}_2\text{O} = 378.36$.—Alkaloid fr. Cinchona bark.—Bulky, wh., v. bitter, cryst. powd.—**SOL.**: 1560 W., 0.8 A., 1.1 C., 1.9 E., & 1890 ammonia water, at 25° C., & 800 boil. W., U.S.P.—**MELT.**: 57° C. but on continued heat bec. anhydrous, & then melts at abt 175° C. w. decomp'n.—**ACTION**: Antipyr.; Antiper.; Antisep.; Emmen.; Ecboic; Tonic.—**USES**: Reduce fever & hectic flush in phth.; cholera; hay fever; yellow fever, typhus & typhoid, remit. & intermit. fevers; pneumon.; Grave's dis.; w. emetine in dysentery; malaria; amenor.; urticaria; antisept. f. intest. canal; hasten labor, & as gen'l bitter tonic; loc., as styptic. Salts us'y prescribed. For hypodermic use, the bisulphate, dihydrochloride, ethylsulphate, quinate, hydrobromide, or carbamidated hydrochloride, is to be preferred.—**DOSE**: *Tonic*, 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.); *antiperiod.*, 0.5–1 Gm. (8–15 grn.) bef. the expected paroxysm; *antipyret.*, 1–1.6 Gm. (15–25 grn.) in the course of 1 hr; aver. dose, 0.1 Gm. ($\frac{1}{2}$ grn.) as *tonic*, 1 Gm. (15 grn.) p. day as *antimalarial*.—*Subcut.* (in form of salts), 0.2–0.5 Gm. (3–8 grn.).—**MAX. D.**: 1.6 Gm. (25 grn.) single; 3 Gm. (45 grn.) p.d.—**CAUT.**: Keep in dark, well-stoppered bottles.

Quinine Acetate Merck

$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{C}_2\text{H}_4\text{O}_2 = 384.35$.—Wh. cryst.; abt 84.4% quinine.—**SOL.**: 7 A.; 600 cold, 20 hot, W.—**DOSE**: 0.06–1 Gm. (1–15 grn.).—**CAUT.**: Keep well stoppered.

QUININE ACETOSALATE—see Quinine Acetylsalicylate

Quinine Acetylsalicylate—B.P.C.

Quinine Acetosalate, or Salacetate; Xaxaquin.— $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{C}_6\text{H}_4 \cdot \text{COOH} \cdot \text{OCOCH}_3 = 504.42$.—Fr. alcoh. soluts of quin. & acetylsalicylic acid.—Wh., cryst. powd.; abt 64% quinine.—**SOL.**: 350 W., 50 A. (90%), 7 C.; insol. E.—**MELT.**: 157° C.—**USES**: As of quinine salicylate.—**DOSE**: 0.06–0.3 Gm. (1–5 grn.).

QUININE ACID HYDROBROMIDE—see Quinine Dihydrobromide

QUININE ACID HYDROCHLORIDE—see Quinine Dihydrochloride

Quinine Albuminate

Yellowish-wh. scales.—**SOL.**: Dil. HCl-pepsin W.—**ACTION**: Tonic.—**USES**: Partic. f. delicate patients.—**DOSE**: 0.06–1 Gm. (1–15 grn.).

Quinine Anisate

Anetholquinine.— $(C_{20}H_{24}N_2O_2)_2 \cdot C_{10}H_{12}O + 2H_2O = 832.79$.—**Colorl.** cryst.—**SOL.**: E., hot A.; insol. cold A. & W.—**USES**, &c.: As of the sulphate.

Quinine Antimonate

Wh. powd.—**Insol.** W.—**ACTION**: Combined Febrifuge, Lax., & Diaph.—**USES**: Pneum., gout, herpes, pernicious intermit. fever.—**DOSE**: 0.1–0.4 Gm. ($1\frac{1}{2}$ –7 grn.) sev'l t.p.d.

Quinine Arsenate Merck

$(C_{20}H_{24}N_2O_2)_2 \cdot H_3AsO_4 + 8H_2O = 934.73$.—**Wh.** cryst. or powd.; 69.4% anhydr. quinine, 15.2% H_3AsO_4 .—**SOL.**: Hot W.—**ACTION**: Anti-periodic.—**USES**: Persistent intermit. fever, obstinate skin dis., migraine, puerperal fever.—**DOSE**: 0.004–0.008 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.).—**MAX.** D.: 0.05 Gm. ($\frac{3}{4}$ grn.), single, & 0.1 Gm. ($1\frac{1}{2}$ grn.) p. day.—**ANTID.**: Emetics, stomach siphon, hot milk & water w. mustard, then milk w. magnesia, saccharated iron oxide, dialyzed iron, &c.—**CAUT.**: Poison!

"QUININE ARSENITE"—see Quinine Arsenited

Quinine Arsenited

"Quinine Arsenite."—Mixture of abt 92% quinine alkaloid & abt 8% As_2O_3 .—**Wh.**, odorl. powd.—**SOL.**: W. dissolves out chiefly the As_2O_3 ; C. diss. out the quinine.—**ACTION**: Antimalarial.—**Accord.** to Bénakz, may be given in comparatively large doses (0.12–0.25 Gm. [2–4 grn.] 1?), as quinine & arsenic are physiologically antagonistic.—**DOSE**: 0.04 Gm. ($\frac{3}{8}$ grn.) 3 t.p.d.

QUININE, AUSTRALIAN NATIVE—see Alstonia

Quinine Benzoate Merck

$C_{20}H_{24}N_2O_2 \cdot C_7H_6O_2 = 446.39$.—**Fr.** alcoholic soluts of benzoic acid & anhydr. quinine.—**Wh.** cryst.; abt 73% quinine.—**SOL.**: A., abt 350 cold, abt 40 boil., W.—**USES**, &c.: As of the sulphate.—**DOSE**: 0.12–0.6 Gm. (2–10 grn.).

QUININE BETANAPHTHOL- α -MONOSULPHONATE—see Quinaphthol

QUININE BIMURIATE—see Quinine Dihydrochloride

QUININE BINODATE—see Quinine Diiodate

QUININE BISALICYLOSALICYLATE—see Quinisal

Quinine Bisulphate Merck—U.S.P. X—Cryst. or Powd.

Acid Quinine Sulphate.— $C_{20}H_{24}N_2O_2 \cdot H_2SO_4 + 7H_2O = 548.50$.—**Colorl.**, odorl., v. bitter cryst. or powd.; effloresce on expos. to air, & become yellow on expos. to light.—**SOL.**: 9 W., 23 A., 625 C., 2500 E., & 15 G., at 25° C., 0.7 boil. W., & 0.7 A. at 60° C., U.S.P.—**ACTION**: Antiper., Antipyr., Antisept., Tonic.—**USES**: *Intern.*, as of the sulphate, but used also

subcut.—*Extern.*, chiefly in 0.2% aqu. solut. f. irrig. nose in hay-fever.—**DOSE**: As of the sulphate.—*Subcut.*, 0.5–1 Gm. (8–15 grn.).—**CAUT.**: Keep fr. light.

Quinine Bitartrate

$C_{20}H_{24}N_2O_2 \cdot C_4H_6O_6 + H_2O = 492.39$.—**Wh.** cryst.—**SOL.**: v. sltly W. & A.

Quinine Borate

$C_{20}H_{24}N_2O_2 \cdot H_2BO_2 = 369.22$ (?).—**Wh.** cryst.—**SOL.**: W., A.—**USES**, &c.: As of the sulphate.

Quinine Borosalicylate

Wh., diffic. sol. powd.—**USES**, &c.: As of the salicylate.

Quinine Bromate

$C_{20}H_{24}N_2O_2 \cdot HBrO_3 = 453.24$.—**Wh.** cryst.—**SOL.**: W., A.—**USES**, &c.: As of the sulphate.

QUININE "BROMIDE"—see Quinine Hydrobromide

Quinine Cacodylate—B.P.C.

$C_{20}H_{24}N_2O_2 \cdot (CH_3)_2AsO_2H = 462.33$.—**Wh.** powd.—**SOL.**: W. & A.; less sol. hot W.—**DOSE**: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.) single, & up to 0.3 Gm. (5 grn.) p. day.

Quinine Camphorate

$(C_{20}H_{24}N_2O_2)_2 \cdot C_{10}H_{16}O_4 = 848.79$.—**Wh.** powd.—**SOL.**: A.; insol. W.—**USES**, &c.: As of the sulphate.

QUININE CARBOLATE—see Quinine Phenate

Quinine Carbonate

$C_{20}H_{24}N_2O_2 \cdot H_2CO_3 + H_2O = 404.35$.—**Colorl.** cryst.—**SOL.**: W., A.; in acids w. effervesc.; insol. E.—**Effloresc.** in air; decomp. above 110° C., w. evol. of CO_2 .

QUININE CARBONIC ETHER—see Euquinine

Quinine Chlorate

$C_{20}H_{24}N_2O_2 \cdot HClO_3 + 2H_2O = 444.81$.—**Wh.** cryst.; explode at high temp.—**SOL.**: W., A.—**USES**: Malaria, & fevers w. anginal symptoms.

Quinine Cinnamate

$C_{20}H_{24}N_2O_2 \cdot C_9H_8O_2 = 472.42$.—**Wh.** powd.—**SOL.**: A.; alm. insol. W.—**USES**, **DOSES**, &c.: As of the sulphate; partic. useful in malarial migraine.

Quinine Citrate Merck

$(C_{20}H_{24}N_2O_2)_2 \cdot C_6H_8O_7 + 7H_2O = 966.82$.—**Wh.** cryst.; abt 87% anhydr. quinine.—**SOL.**: 3 hot A.; 30 hot, 900 cold, W.—**USES**, &c.: As of the sulphate, but said to have less effect on the brain & stomach.—**DOSE**: 0.12–1 Gm. (2–15 grn.).

QUININE, CRUDE—see Quinium

QUININE "DIBROMIDE"—see Quinine Dihydrobromide

Quinine Dibromsalicylate

$C_{20}H_{24}N_2O_2 \cdot 2(C_6H_6Br_2 \cdot OH \cdot COOH) = 916.12$.—**Yellowish** cryst.—**SOL.**: Diffic. in W., A. & E.

—MELT.: Abt 198° C.—ACTION: Antipy.; Hypn.—USES: To induce sleep in febrile conditions.—DOSE: 0.6–0.75 Gm. (10–12 grn.).

QUININE "DICHLORIDE"—see Quinine Dihydrochloride

QUININE DIETHYLBARBITURATE—see Chineonal

Quinine Dihydriodide—B.P.C.

Acid Quinine Iodide; Quinine "Diiodide."— $C_{20}H_{24}N_2O_2 \cdot 2HI + 5H_2O = 670.24$.—Yellowish cryst. or scales.—SOL.: 20 W. at 15.5° C.—MELT.: 100° C.—USES, &c.: As of the sulphate.—DOSE: 0.06–0.3 Gm. (1–5 grn.).—CAUT.: Keep fr. light.

Quinine Dihydrobromide Merck

Quinine "Dibromide"; Acid Quinine Hydrobromide or Bihydrobromide.— $C_{20}H_{24}N_2O_2 \cdot 2HBr = 486.07$; (also occurs w. $3H_2O$).—Yellowish powd.; abt 66.7% quinine.—SOL.: 3 cold, & more eas. boil. W., 10 A.—USES: Chiefly subcut. in chron. malaria, & rheum. due to malaria.—DOSE: 0.06–0.6 Gm. (1–10 grn.); *subcut.* or *intramusc.* 0.06–0.2 Gm. (1–3 grn.) in 1.3 cc. (20 M) W., ev. o. day.—CAUT.: Keep fr. light.

Quinine Dihydrochloride Merck—U.S.P. X

Acid Quinine Hydrochloride; Quinine "Dichloride," or Bimuriate.— $C_{20}H_{24}N_2O_2 \cdot 2HCl = 397.24$.—Wh., odorl., v. bitter powd.; abt 81% anhydr. quinine.—SOL.: 0.6 W., 12 A., at 25° C., sltly C., v. sltly E., U.S.P.—Well adapted f. subcut. inj., bec. of ready solubility.—ACTION: Tonic; Antimalarial.—USES: As of quinine salts; partic. in whoop-cough in children.—DOSE: *Tonic*, 0.06–0.2 Gm. (1–3 grn.); aver. dose as *tonic*, 0.1 Gm. (1½ grn.), & as *antimalarial*, 1 Gm. (15 grn.) daily; for *children*, subcut., 0.1 Gm. (1½ grn.) f. ea. year of the child's age, in 25%–30% solut., 2 t.p.d.—CAUT.: Keep fr. light.

QUININE DIHYDROCHLORIDE, CARBAMIDATED—see Quinine & Urea Hydrochloride

Quinine Diiodate

Quinine Biniodate.— $C_{20}H_{24}N_2O_2 \cdot (HIO_3)_2 = 676.16$.—Wh., cryst. powd.—SOL.: W.—DOSE: 0.1 Gm. (1½ grn.) subcut.

QUININE DIIODIDE—see Quinine Iodohydriodide

QUININE "DIIODIDE"—see Quinine Dihydriodide

Quinine Eosolate

Neutral Quinine Trisulphoacetylguaiacol.— $(C_9H_7S_3O_{12})(C_{20}H_{24}N_2O_2) = 727.59$.—Yellow, amorph., bitter powd.—SOL.: Eas. A.; diffic. W.—ACTION: Febrif.—USES: Chron. & recent malaria, influenza, malarial cachexy, & malarial anemia.—DOSE: 0.3–1 Gm. (5–15 grn.).

QUININE ETHYLCARBONATE—see Equinine

Quinine Ethylsulphate Merck

Quinine Sulphovinate, or Sulphethylate.— $C_{20}H_{24}N_2O_2 \cdot C_2H_5HSO_4 = 450.43$.—Wh. cryst.; abt 71% quinine.—SOL.: 3 W.—USES: Hypoderm. in severe malarial fever.—DOSE: 0.2–0.5 Gm. (3–8 grn.), hypoderm.

QUININE FERRICHLORIDE—see Iron & Quinine Chloride, Ferric

Quinine Ferricyanide Merck

$C_{20}H_{24}N_2O_2 \cdot H_3Fe(CN)_6 + 1\frac{1}{2}H_2O = 566.27 (?)$.—Yellow cryst.—SOL.: v. sltly W.

Quinine Ferrocyanide Merck

Quinine Hydroferrocyanide.— $(C_{20}H_{24}N_2O_2)_4 \cdot H_4Fe(CN)_6 + 7H_2O = 1639.29$.—Yellow, odorl. powd.; abt 79% anhydr. quinine.—SOL.: A.; v. sltly W.—USES: As of sulphate in tertian fever & night sweats of phth.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

Quinine Formate Merck

Quinoform; Chinoform.— $C_{20}H_{24}N_2O_2 \cdot CH_2O_2 = 370.33$.—Wh., cryst. powd.; abt 87% anhydr. quinine.—SOL.: Abt 30 W.; A., C.; v. sltly E.; insol. oils.—MELT.: 109° C.—ACTION: Tonic.—USES: As of the sulphate. Well adapted f. subcut. use where quinine not well borne by mouth.—DOSE: 0.06–0.6 Gm. (1–10 grn.); *subcut.*, 0.1–0.2 Gm. (1½–3 grn.) diss. in 2 cc. (30 M) W.

Quinine Gallate

Variable compos'n.—Yellowish cryst.—SOL.: Hot W., A.—ACTION, USES, &c.: As of quinine tannate.

Quinine Glycerophosphate Merck—N.F. IV

Kineurine.— $C_3H_7O_3 \cdot H_2PO_3 \cdot (C_{20}H_{24}N_2O_2)_2 + 4H_2O = 892.81$.—Wh. powd.; abt 72% anhydr. quinine.—SOL.: 850 W., & 75 A. at 25° C., v. sol. boil. A., v. sltly C. or E., N.F.—ACTION: Tonic; Antineuralg.; Antiperiodic.—USES: Nervous debility following malaria; also in neuralg., neurasthenia, etc.—DOSE: 0.06–0.6 Gm. (1–10 grn.); aver. dose, *tonic*, 0.1–0.2 Gm. (1½–3 grn.); in malaria, & neuralg., 0.3–0.6 Gm. (5–10 grn.); also may be given subcutaneously.

Quinine Glycyrrhizinate

Brown powd.; abt 25% quinine.—SOL.: A.—USES: Partic. adapted f. childr., because of only v. sltly bitter taste.—USES & DOSE: As of the sulphate.

QUININE GUAIACOLBISULPHONATE—see Guaiquin

QUININE HYDRIODATE—see Quinine Hydriodide

Quinine Hydriodide Merck

Quinine "Iodide" or Hydriodate.— $C_{20}H_{24}N_2O_2 \cdot HI = 452.24$.—Yellowish powder; abt 71% anhydr. quinine.—SOL.: Sltly cold, eas. hot, W., A., E., dil. acids.—USES: Intermittent fever complicated by scrof.; tubercul., & chron. rheum.—DOSE: 0.2–0.5 Gm. (3–8 grn.).—CAUT.: Keep fr. light.

QUININE HYDRIODIDE, IODIZED—see Quinine Iodohydriodide

QUININE HYDROBROMATE—see Quinine Hydrobromide

Quinine Hydrobromide Merck—U.S.P. X

Quinine "Bromide" or Hydrobromate.— $C_{20}H_{24}N_2O_2 \cdot HBr + H_2O = 423.25$.—Wh., silky, odorl., light need.; abt 95% anhydr. quinine.—SOL.: 40 W., 1 A., 0.6 C., 23 E., 7 G., at 25° C., & 3.2 W., at 80° C., U.S.P.—ACTION: Antipyr.; Antiperiodic; Antineuralg.—USES: Uncontrollable hysterical vomiting; various gastric neuroses; periodic neuralg., headache, pernicious & hemorrhagic intermittent fever, typhoid, acute rheumat., etc.—DOSE: 0.05–0.6 Gm. ($\frac{3}{4}$ –10 grn.); aver. dose, as *tonic*, 0.1 Gm. (1½ grn.), & as *antimalarial* 1 Gm. (15 grn.) p. day. Also given subcut.—CAUT.: Keep fr. light.

QUININE HYDROCHLORATE—see Quinine Hydrochloride

Quinine Hydrochloride Merck—U.S.P. X

Quinine Hydrochlorate, or Muriate.— $C_{20}H_{24}N_2O_2 \cdot HCl + 2H_2O = 396.81$.—Wh., silky, odorl., bitter need.; abt 81% anhydr. quinine.—SOL.: 16 W., 0.8 A., 0.7 C., 340 E., 7 G. at 25° C., & 0.5 W. at 80° C., U.S.P.—ACTION: Antipyr.; Antiperiodic; Antisept.; Emmen.; Tonic.—USES: Influenza; otherwise as of the sulphate; also *intramusc.* in intractable malar., & in black-water fever; also *intraven.* in syph.; as hemostat. in 5% solut. in parenchym. bleeding.—*Extern.* in 1:60 emuls. w. cod-liver oil in wounds, burns, tert. syph. ulcers, & intertrigo.—*Techn.*, in tests f. cellulose (Batka), phenol (Hesse), CO-blood (Horoskiewicz), Na_2CO_3 in $NaHCO_3$ (Kubli), & HCl (Rabuteau).—DOSE: As of sulphate. In black-water fever 0.6 Gm. (10 grn.) ev. 4 hrs *intramusc.*; in syph., solut. quin. hydrochlor. 10, NaCl 6.75, & W. 100, *intraven.*; in intract. malaria. 0.3 Gm. (5 grn.) *intramusc.* A solut. suitable f. subcut., *intraven.*, & *intramusc.* inj. may be made fr. 3 Gm. (45 grn.) quin. hydrochloride 1.5 Gm. (23 grn.) urethane, & 3 cc. (45 M) W., as it is sterilizable & does not deposit.—In VETER. MED., cattle & horses, 10–25 Gm. (2½–6¼ dr.); goats & sheep, 2–5 Gm. (30–75 grn.); dogs, 0.3–1 Gm. (5–15 grn.); pigs, 1–2 Gm. (15–30 grn.).—CAUT.: Keep fr. light.

Quinine Hydrochlorophosphate

Quinine Phosphochloride.— $(C_{20}H_{24}N_2O_2)_2 \cdot 2HCl \cdot H_3PO_4 + 9H_2O = 981.76$.—Wh. or sltly yellowish cryst.—SOL.: 2 W.—USES: Nerv. headache & malaria.—DOSE: As of quinine sulphate.—CAUT.: Keep fr. light.

Quinine Hydrochlorosulphate Merck

Quinine Sulphochloride. — $(C_{20}H_{24}N_2O_2)_2 \cdot 2HCl \cdot H_2SO_4 + 3H_2O = 873.68$.—Fine, wh. need.; abt 74% anhydr. quinine.—SOL.: 1 W., A.—USES: Partic. *subcutan.* in pernicious malaria; also in influenza, pneumon.—DOSE: 1–2 cc. (15–30 M) of 10%–30% solut. daily. In mammary carcinoma, 0.12–0.25 Gm. (2–4 grn.) subcut. Less painful subcut. than any o. quinine salt.—CAUT.: Keep fr. light.

QUININE HYDROFERROCYANIDE—see Quinine Ferrocyanide

Quinine Hydrofluoride—B.P.C.

$C_{20}H_{25}N_2O_2F = 344.32$.—Colorl. cryst.—SOL.: A.; insol. W.—USES: Rickets, enlarged spleen.—DOSE: 0.06–0.12 Gm. (1–2 grn.).—CAUT.: Keep fr. light.

Quinine Hypophosphite Merck

$C_{20}H_{24}N_2O_2 \cdot HPH_2O_2 = 390.37$.—Wh. cryst.; abt 76% anhydr. quinine.—SOL.: Abt 35 W., 12.5 A., 27 C., at 25° C., & alm. insol. E.—USES: Phth., scrofula, & neurasthenic condit.—DOSE: 0.06–0.3 Gm. (1–5 grn.); aver. dose, *tonic*, 0.1 Gm. (1½ grn.); *antimalarial*, 1 Gm. (15 grn.) p.d.—CAUT.: Keep fr. light.

Quinine Iodate

$C_{20}H_{24}N_2O_2 \cdot HIO_3 + 3H_2O = 554.29$.—Wh. or sltly yellowish cryst. powd.—SOL.: Eas. A., dil. acids, 700 W.; v. diffic. in C., E.—USES: Neuralg.—DOSE: Intern. & subcut., 0.1 Gm. (1½ grn.).

QUININE "IODIDE"—see Quinine Hydriodide

Quinine Iodohydriodide—B.P.C.

Quinine Diiodide, or Periodide; Iodized Quinine Hydriodide.— $C_{20}H_{24}N_2O_2 \cdot HI + I_2 = 706.08$.—Reddish-brown, amorph. powd.; abt 46% quinine.—Insol. W., A.—USES: *Intern.*, obstinate intermit. fevers; secondary & tert. syphil.—*Extern.*, in 3%–4% oint. in enlarged spleen.—DOSE: 0.06–0.25 Gm. (1–4 grn.); in syph., 2.6 Gm. (40 grn.) p.d.; in malaria, 1–1.6 Gm. (15–25 grn.); 2.5 Gm. (38 grn.) p. day.—CAUT.: Keep fr. light.

Quinine Iodosulphate

Herapathite; Iodoquinine Sulphate.— $4C_{20}H_{24}N_2O_2 \cdot 3H_2SO_4 \cdot 2HI \cdot I_4 + 6H_2O = 2463.09$.—Dichroic cryst. or dark olive-green powd.; cryst. are red or green by reflected or transmitted light, & polarize like tourmaline.—SOL.: Boiling A.

QUININE LABARRAQUE—see Quinium

Quinine Lactate Merck

$C_{20}H_{24}N_2O_2 \cdot C_3H_6O_3 = 414.37$.—Wh. cryst.; abt 78.2% anhydr. quinine.—SOL.: Abt 3 cold & 1 boil. W., v. sol. A. & alm. insol. E., B.P.C.—USES: As of the sulphate; one of the most soluble neutral salts of quinine.—DOSE: 0.06–0.3 Gm. (1–5 grn.) single, & 0.2–0.6 Gm. (3–10 grn.) p. day. Also given subcut.—*Extern.*, as 1% solut. by inj. in gonorrhea.—CAUT.: Keep fr. light.

Quinine Lygosinate

$CO(CH:CH.C_6H_4.C_{20}H_{24}N_2O_2)_2 = 880.80$.—Quinine salt of diorthocumarketone, a condens. prod. of salicylic aldehyde & acetone.—Fine, orange-yellow, sltly bitter powd.; faint arom. odor.—SOL.: 6 A., eas. B., C., 20 hot oil; v. diffic. in W.—MELT.: 114° C.—ACTION: Bactericide; Styptic.—USES: Cancer, caries, gland. swellings, gangren. wounds, parenchym. hemorrhage, &c.—APPL.: Dusting powd., in glycerinic suspens., & as 30% gauze, &c.

QUININE MURIATE—see Quinine Hydrochloride

Quinine Nitrate

$C_{20}H_{24}N_2O_2 \cdot HNO_3 + H_2O = 405.34$.—Colorl., bitter cryst.—SOL.: W., A.—USES: Adynamic affections of urinary system.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).

Quinine Nucleinate

Yellowish-wh. powd.; 40% quinine.—SOL.: Sltly W.; more eas. in 50% A. & dil. G.—USES: Syph.—DOSE: 0.5 Gm. (8 grn.) intramusc. in 5% oily susp., alternating w. 0.6–0.8 Gm. (10–12 grn.) quinine hydrochloride intraven.

Quinine Oleate Merck—N.F. V

Brown, thick liq.; 25% hydrated quinine = abt 21.4% anhydr. quinine.—SOL.: A., E., oils, & oleic acid.—ACTION: Antipyr.; Antiper.—USES: By inunction in 5%–10% oint.

Quinine Oxalate

$(C_{20}H_{24}N_2O_2)_2 \cdot C_2H_2O_4 + 6H_2O = 846.74$.—Wh. need.—SOL.: A.; sltly W.—ACTION, USES, etc.; As of quinine sulphate.

QUININE PERIODIDE—see Quinine Iodohydriodide

Quinine Phenate

Quinine Phenolate, or Carbolate; Phenol-quinine.— $C_6H_6O \cdot C_{20}H_{24}N_2O_2 = 418.39$.—Wh. needles.—SOL.: 80 A., 400 W.—USES: As of the sulphate, but partic. in typhoid & puerperal fever.—DOSE: 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) 3–5 t.p.d.

QUININE PHENOLATE—see Quinine Phenate

QUININE PHENOSULPHONATE—see Quinine Sulphocarbolate

Quinine Phosphate Merck

$(C_{20}H_{24}N_2O_2)_3 \cdot 2H_3PO_4 + 5H_2O = 1259.13$, cont. abt 77% anhydr. quinine (also occurs as $[C_{20}H_{24}N_2O_2]_2 \cdot H_3PO_4 + 8H_2O = 890.81$).—Fine, wh. need. or powd.—SOL.: Abt 50 boil. A., abt 600 W.—USES: Mildest quinine salt f. use in protracted atonic, gouty-rheumatic fevers, atonic leucorrh., & chlorosis.—DOSE: 0.12–0.25–0.4 Gm. (2–4–6 grn.).

QUININE PHOSPHOCHLORIDE—see Quinine Hydrochlorophosphate

Quinine Quinate

$C_{20}H_{24}N_2O_2 \cdot C_7H_{12}O_6 + 2H_2O = 552.47$.—Wh. to yellowish, v. bitter cryst.—SOL.: 3 W., A.—USES: Inst. of the sulphate in convalesc. after malaria, but chiefly by inj., on account of its great solubility.—DOSE: As of the sulphate.

QUININE SALACETATE—see Quinine Acetylsalicylate

Quinine Salicylate Merck—U.S.P. IX

$C_{20}H_{24}N_2O_2 \cdot C_7H_6O_3 + H_2O = 480.41$.—Colorl., odorl., bitter cryst. or powd.; abt 67.5% anhydr. quinine.—SOL.: 14 A., 25 C., 160 E., 13 G. at 25° C., & sltly W., U.S.P. IX.—ACTION: Antisep.; Antipyr.; Analg.—USES: Typhoid, malaria, influenza, chlorosis, diphth., herpes zoster, pneum., meningitis, neuralg., sciatica, rheum., gout, lumbago, & muscular pain fr. cold.—DOSE: 0.12–2 Gm. (2–30 grn.); aver. dose, as *tonic*, 0.1 Gm. ($\frac{1}{2}$ grn.); *anti-*

malarial, 1 Gm. (15 grn.) daily.—CAUT.: Keep in the dark.

QUININE SALICYLIC ESTER—see Saloquinine

QUININE (BI-) SALICYLOSALICYLATE—see Quinisal

Quinine Succinate

$C_{20}H_{24}N_2O_2 \cdot C_4H_6O_4 + 8H_2O = 586.50$.—Bitter, wh. need.—SOL.: A., boil. W.—CAUT.: Keep in the dark.

Quinine Sulphate Merck—U.S.P. X—Cryst. or Powd.

$(C_{20}H_{24}N_2O_2)_2 \cdot H_2SO_4 + 7H_2O = 872.80$ (or w. $8H_2O = 890.82$).—Wh., lustr., odorl., or shin'g, eas. compressible, v. bitter, fragile efflorescent need.; darkens in the light; abt 74.3%–73% anhydr. quinine.—SOL.: 725 W., 107 A., 30 G. at 25° C., 47 W. at 80° C., abt 12 A. at 60° C., sltly in C. or E., eas. sol. in mixt. 7 C. & 4 absol. A., U.S.P.—MELT.: When dried over H_2SO_4 , at 212° C., B.P.C.—ACTION: Antipyr.; Antiper.; Antisep.; Antizymotic; Emmen.; Ecboic; Tonic; Germic.—USES: *Intern.*, all fevers, espec. intermit. & remit.; bitter tonic; pneumon., acute artic. rheumat., cholera, erysip., phth., scurvy, pyelitis, septicemia, vesical catarrh, chorea, chlorosis, anemia; also in amebic dysentery as 1:500–1000 aqu. solut. by enema or orally; also in whoop-cough (bitter taste disguised by yerba santa, licorice, tannin, or saccharin).—*Extern.*, on wounds, ulcers, &c.—*Techn.*, in brewing to obt. healthy yeast capable of vigorously fermenting, & in photography.—DOSE: Aver., as *tonic*, 0.1 Gm. ($\frac{1}{2}$ grn.) & as *antimalarial*, 1 Gm. (15 grn.) per day; in *pernicious fever*, 2–5 Gm. (30–75 grn.) within 12 hrs; *neural.*, 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) ev. 2 hrs; as *antipyr.*, 1–2 Gm. (15–30 grn.) in the course of 1 hr; in *hectic fever*, 0.12–0.2 Gm. (2–3 grn.) ev. 2 hrs; in *endamebic dysent.*, 2 Gm. (30 grn.) p.d.; as *prophylactic in malaria*, 0.3–0.5 Gm. (5–8 grn.) 1–2 t.p.d.; *prophylactic in influenza*, 0.5 Gm. (8 grn.) ev. o. day.—For *childr.*, per day, 0.05–0.1–0.2 Gm. ($\frac{3}{4}$ –1½–3 grn.) per yr of age, in 2 doses. As suppository, 1–1.6 Gm. (15–25 grn.).—In VETER. MED., like the hydrochloride.—INCOMP.: Ammonia, alkalies, limewater, tannin, Donovan's solut., I, KI, &c.—CAUT.: Keep dark & well stoppered.

QUININE SULPHETHYLATE—see Quinine Ethylsulphate

Quinine Sulphocarbolate Merck

Quinine Phenosulphonate.— $C_{20}H_{24}N_2O_2 \cdot C_6H_4 \cdot OH \cdot SO_3H = 498.45$.—Wh. or sltly yellow, odorl. powd.; abt 65% anhydr. quinine.—SOL.: A.; diffic. W.—DOSE: 0.06–0.5 Gm. (1–8 grn.).

QUININE SULPHOCHLORIDE—see Quinine Hydrochlorosulphate

QUININE SULPHOVINATE—see Quinine Ethylsulphate

Quinine Tannate Merck—U.S.P. X

Approx. $C_{20}H_{24}N_2O_2 \cdot 2(C_{14}H_{10}O_9) = 968.61$.—Yellowish-wh., tastel., odorl. powd.; 30%–35%

anhydr. quinine.—**SOL.**: Sltly W., C., E.; somewh. more sol. A., U.S.P.; 800 cold & abt 30 boil. W., & abt 3 A. (90%), B.P.C.—**ACTION & USES**: As of the sulphate; recom. f. childr., partic. in diar. & whoop-cough, because alm. tastel. Less active than the more solub. salts.—**DOSE**: 0.06–0.6 Gm. (1–10 grn.); aver. dose, 0.2 Gm. (3 grn.).

Quinine Tartrate Merck

$(C_{20}H_{24}N_2O_2)_2 \cdot C_4H_6O_6 + 2H_2O = 834.72$.—Wh., cryst. powd.; abt 77.7% anhydr. quinine.—**SOL.**: Hot W.—**USES, DOSES, &c.**: As of the sulphate.

QUININE TRISULPHOACETYLGLUAIACOL—see Quinine Eosolate

Quinine Valerate Merck—N.F. IV—Cryst. or Powd.

$C_{20}H_{24}N_2O_2 \cdot C_5H_{10}O_2 + H_2O = 444.43$.—Colorl. bitter cryst. powd.; slt valerian odor; abt 73% anhydr. quinine.—**SOL.**: Hot W., readily in A., & spar. in cold W., N.F.; 120 cold & 40 boil. W., 2 A. (90%), 14 E., B.P.C.—**MELT.**: Abt 90° C.—**ACTION**: Nerve Tonic; Antineuralg.; Antipyr., &c.—**USES**: Hemiplegia & debilitated or malarial condit. w. a nervous state of hyst.; cardialgia, epilepsy, intermittent fever w. typhoid character.—**DOSE**: 0.12–0.5 Gm. (2–8 grn.) single, 1 Gm. (15 grn.) p. day.—Also given by enema in doses of 1–2.25 Gm. (15–34 grn.).

Quinine & Urea Hydrochloride Merck—U.S.P. X—Cryst. or Powd.

Carbamidated Quinine Dihydrochloride.— $C_{20}H_{24}N_2O_2 \cdot HCl + CO(NH_2)_2 \cdot HCl + 5H_2O = 547.38$.—Wh., odorl., bitter cryst. or powd.; not less than 58% anhydr. quinine.—**SOL.**: 0.9 W. & 2.4 A. at 25° C.—**MELT.**: 70°–75° C., B.P.C.—**ACTION**: Anesthetic; Hemostat.—**USES**: Subcut., on account of solubility, in malaria, & pneumon.; in hydrophobia; acute lobar & lobular pneumon.; whoop-cough; cholera; in syphil. fever; in hyperthyroidism. Also in surgery as a local anesth. hypodermically, in 0.25%–0.5% solut. Anesthesia said to last 7–10 days w. a 0.5%–1% solut.; & sev'l hours w. a 0.25% solut., hence pain relieved during healing of surgical wounds.—**DOSE**: Subcut., intramusc., or intraven., 0.12–1.6 Gm. (2–25 grn.) in 50% aqu. solut.; aver. subcut. dose, 1 Gm. (15 grn.) at one dose once p.d. In hyperthyroidism 1–4 cc. (15–60 M) of a 30%–50% solut. ev. third day. In hydrophobia 1 Gm. (15 grn.) in 3 cc. (45 M) physiolog. NaCl solut. intraven., ev. 2 hrs f. 3 doses, then one 2½ hrs later, & next day (10 hrs later) another, & 14 hrs later still another.

QUININEDIGLYCOLICACID SULPHATE—see Insinip

Quinisol

Quinine Bisalicylosalicylate Merck.— $C_{20}H_{24}N_2O_2 \cdot (OH \cdot C_6H_4 \cdot CO \cdot OC_6H_4 \cdot COOH)_2 = 840.61$.—Wh., fluffy, odorl. powd.; sltly bitter taste.—**SOL.**: Acids & alkalies w. decomp'n; pract. insol. W.—**ACTION**: Antipyret.; Antisept.; Analges.; exhibits combined effects of salicylates & quinine.—**USES**: Where salicylates &

quinine indicated; partic. useful in painful or febrile diseases; serviceable in influenza, tonsillitis, coryza, bronchopneumonia; partic. effective as a prophylactic to prevent or abort a "cold"; to relieve pain in rheumatic, neuralgic, & o. painful conditions.—**DOSE**: 0.25–0.5 Gm. (4–8 grn.) repeated 3–5 times, at intervals of abt 2 hrs.—**NOTE**: 0.25 Gm. (4 grn.) Quinisol yields the equivalent of abt 0.12 Gm. (2 grn.) quinine sulphate & abt 0.15 Gm. (2½ grn.) salicylic acid.

do. —Tablets 4 Grains Each

Quinium

Chinium; Crude Quinine; Quinine Labarraque.—Mixt. cont'g all the constit. of cinchona bark but the woody fiber, & obt. fr. cinchona bark by KOH & alcohol.—Dark brown; amorph., friable mass.—**ACTION**: Febrifuge; Tonic; Stim.—**USES**: Obstinate intermit. fever; said to act better than quinine.—**DOSE**: Tonic, 0.15 Gm. (2½ grn.) 2 t.p.d.; as febrifuge, 1.5 Gm. (23 grn.) p. day.

Quinoferrate

A preparation of arsenoferratin & quinine, in which both the iron & arsenic are in most effective & assimilable organic form.—**USES**: Prophylaxis & treatment of malaria, & in anemia & general debility during convalescence where arsenic & iron are most useful.—Supplied as sugar coated tabl. ea. cont. 0.012 Gm. (½ grn.) iron & 0.00012 Gm. (1/500 grn.) arsenic, both in organic combination, with 0.1 Gm. (1½ grn.) quinine hydrochloride.—**DOSE**: Children, 1 tabl. 2–3 t.p.d. after meals; adults, 1–2 tabl. 3–4 t.p.d. after meals.

QUINOFORM—see Quinine Formate

Quinoidine Merck

Chinoidine.—Mixed amorph. alkaloids fr. cinchona bark.—Bitter, brownish-black mass; lustrous, resinous appearance & conchoidal fract.—**SOL.**: Dil. acids, A., C.—Softens below 100° C.—**ACTION**: Antipyr., Antiper., Tonic.—**USES**: Intermit. & remit. fever. Best taken between paroxysms.—**DOSE**: 0.12–1 Gm. (2–15 grn.) 2–4 t.p.d.; f. children 2–6 years old 0.1–0.4 Gm. (1½–7 grn.).

Quinoidine Citrate

Reddish-brown scales.—**SOL.**: W., A.—**USES**: Malaria.—**DOSE**: 0.3–1.6 Gm. (5–25 grn.) single, 1–3 Gm. (15–45 grn.) p. day.

Quinoidine Tannate

Amorph., light-brown powd.—**SOL.**: Partly in A.—**ACTION**: Antipyr.; Antiper.; Astring.; Tonic.—**USES**: Intern., dyspep., diar., intermit. & remit. fever, typhoid w. putrid character, chron. whoop-cough, & blennorrhoea.—**DOSE**: 0.12–0.8 Gm. (2–12 grn.).—In VETER. MED., in hog cholera, 1.6 Gm. (25 grn.) 3 t.p.d.

Quinoidine

Chinoiodine.— $C_9H_7NICl = 291.49$.—Chlorine-iodine addit'n prod. of quinoline.—Yellow powd.—**SOL.**: A.; insol. W.—**ACTION**: Antisept.; Sedat.—**USES**: Intern., in angina pectoris &

phth.—*Extern.*, in lymphorrhea following gland extirpation; w. talcum as dusting powd., or in oint. w. petrolatum, in skin dis.—*Dose*: 0.2–0.6 Gm. (3–10 grn.) p. day.

QUINOL—see Hydroquinone

Quinoline

Chinoline; Leucoline.— $(\text{CH}:\text{CH}).\text{C}_6\text{H}_4.\text{N}:\text{CH}$ = 129.11.—Fr. nitrobenzene, aniline, G., & conc. H_2SO_4 by heat.—Colorl. liq., becoming yellowish on keeping; pecul. charact. odor; absorbs moisture fr. air.—*Misc.*: A., E., CS_2 ; insol. W.—*Sp. Gr.*: 1.090.—*Boil.*: 232° – 237° C.—*Action*: Antisep.; Antipyr.; Antizymotic.—*Uses*: *Intern.*, intest. antisept. in dysent.; also in intermittent fever & phth. (us'ly as the tartrate).—*Extern.*, in 1:500 alcohol. solut. as gargle & in 1:20 solut. as paint in diphth.; as a tooth wash; in conc. form f. disinf. root canals of teeth.—*Techn.*, as preserv. of anatomical & o. specimens.—*Dose*: 1–10 drops.—*Max. D.*: 0.75 cc. (12 M) single; 1.5 cc. (23 M) p.d.—*CAUT.*: Keep well stoppered.

QUINOLINE BISULPHATE—see Quinoline Sulphate

QUINOLINE BLUE—see Cyanine

Quinoline Hydrochloride

$\text{C}_9\text{H}_7\text{N}.\text{HCl}$ = 165.58.—*Delic.*, wh. to yellowish cryst.—*Sol.*: W., A., C.—*Melt.*: 93° – 94° C.—*Uses*: As of quinoline tartrate.—*Dose*: 1–2 Gm. (15–30 grn.).

Quinoline Salicylate Merck

$\text{C}_9\text{H}_7\text{N}.\text{C}_7\text{H}_6\text{O}_3$ = 267.19.—Grayish-wh., cryst. powd.—*Sol.*: 80 W.; eas. A., B., E., G., oils.—*Action*: Antisep.; Antirheum.—*Uses*: *Intern.*, whoop-cough.—*Extern.*, as inj. f. gonorr. in 0.7% aqu. solut.—*Dose*: 0.5–1 Gm. (8–15 grn.).

Quinoline Sulphate

Quinoline Bisulphate.— $\text{C}_9\text{H}_7\text{N}.\text{H}_2\text{SO}_4$ = 227.19.—Wh. to grayish-wh., cryst. powd.—*Sol.*: W.—*Action*: Antiseptic.—*Uses* & *Dose*: As of quinoline tartrate.—*Max. D.*: 2 Gm. (30 grn.) single, & 4 Gm. (60 grn.) p. day.

Quinoline Sulphocyanate

$\text{C}_9\text{H}_7\text{N}.\text{CNSH}$ = 188.19.—Alm. colorl. to yellowish cryst. powd.—*Sol.*: Diffic. cold, more eas. in hot W. & in A.—*Melt.*: Abt 138° C.—*Action*: Antisep.—*Uses*: Partic. in gonorr. in 1% solut.—*CAUT.*: Protect fr. light.

Quinoline Tartrate

$(\text{C}_9\text{H}_7\text{N})_3.(\text{C}_4\text{H}_6\text{O}_6)_4$ = 987.60.—Wh., cryst. powd.; pung. odor; sharp taste.—*Sol.*: 80 W., 80 A.; insol. E.—*Melt.*: 125° C. w. decomp.—*Action*: Antipyr.; Antisep.—*Uses*: *Intern.*, intermit. fever, given 3 hrs bef. paroxysm expected; intermit. neuralg., bronchial catarrh, whoop-cough, diphth., typhoid, acute artic. rheum., acute splenic tumor, facial erysip.—*Extern.*, in gonorr., as inj. in 0.7% aqu. solut.—*Dose*: 0.3–2 Gm. (5–30 grn.).—For children, 3 doses of 0.3 Gm. (5 grn.) ea.—*Max. D.*: 1.5 Gm. (23 grn.), single; 3 Gm. (45 grn.) p.d.

Quinoline Yellow—Alcohol-soluble

Quinadylenephthalid; Quinophthalon.— $\text{C}_{18}\text{H}_{11}\text{NO}_2$ = 273.19.—Yellow powd.—*Sol.*: Diffic. in A.; insol. W.—*Uses*: Coloring wax & lacquers.

do. —Water-soluble

Sodium Quinophthalonsulphonate.— $\text{C}_{18}\text{H}_9\text{NO}_3\text{S}_2\text{Na}_2$ = 477.29.—Yellow powd.—*Sol.*: Eas. W. & A.—*Uses*: Dyeing wool & silk.

Quinoline-Hydroquinone

$2\text{C}_9\text{H}_7\text{N} + \text{C}_6\text{H}_4(\text{OH})_2$ = 368.30.—Wh. to reddish cryst.—*Sol.*: W., A., E.—*Melt.*: 98° – 99° C.

Quinone Merck

Benzoquinone; Chinone.— $\text{C}_6\text{H}_4\text{O}_2$ = 108.06.—Fr. aniline (or hydroquinone), H_2SO_4 , & $\text{Na}_2\text{Cr}_2\text{O}_7$.—Yellow cryst.; character. odor.—*Sol.*: A., E., alkal. solut.; sltly in W.—*Melt.*: Abt 115° C.—*Uses*: *Techn.*, to make gelatin insol.; as test f. dioxybenzene (Liebig), & tyrosin (Wurster).

QUINONE MONOXIME—see *p*-Nitrosophenol

QUINOPHAN—see Cinchophen

QUINOPHTHALON—see Quinoline Yellow, Alcohol-soluble

Quinopyrine

Chinopyrine; Antipyrine-quinine.—*Mixt.* of 3 parts quinine hydrochloride & 2 parts antipyrine.—Wh. powd.—*Sol.*: W.—*Uses*: Malaria; adapted f. subcut. use.—*Dose*: 0.3–1.6 Gm. (5–25 grn.) subcut.

QUINOSOL = Oxyquinoline Sulphate

R

Rabl's Chromo-Formic Acid

0.3 Gm. CrO_3 , 2 drops formic acid, & 100 cc. W.—*Uses*: Fixing animal tissues.

RADICAL WEED—see Solanum

Radium

Ra = 226.00; disc. in 1898 by P. & S. Curie, in pitch-blende.—Radium has not been isolated as such in the free state. It is mktd chiefly as

bromide or hydrobromide, chloride, & sulphate, each salt being of varying radioactive strength acc. to its purity. Its strength is denoted by numerals showing the relation to a theoretically pure salt, the radio-activity of which is designated arbitrarily as 1,000,000, or even higher.—The salts of radium give off emanation (Radon) & thereby possess the power to impart radio-activity to o. substcs by contact or exposure, the substcs absorbing emanation & then also

becoming radioactive.—**USES:** Therapeutically, in lupus, cutan. tubercul., rodent ulcer, carcinoma (of rectum, throat, stomach, breast, uterus, etc.) epitheliomata, & sarcomata; nevus & rodent ulcer; goiter; also in ocular dis. (epithelioma, trachoma, rheumatic iritis, orbital neuralg.). The salt, inclosed in a sealed glass tube, is brought near or fastened to the affected part, & the rays allowed to impinge f. a sufficient time. On the healthy skin, the rays may cause severe & obstinate burns that heal very slowly. *Radium Emanation*, a gaseous emanation, also known as Radon (Niton; Ramsay), given off by radium, is also employed medicinally, an aqueous solut. of the emanation being used as drinking water, bath, or by intraven. inj. in subac. & chron. arthritis, gout, rheum., arteriosclerosis, neuritis, diabetes, albuminuria, sciatica, lumbago, lancinating tabetic pains, angina pectoris, etc.; also locally in skin dis., & by inhal.

Radium Bromide

$\text{RaBr}_2 = 385.84$.—The pure salt occurs as wh. or sltly brownish cryst.; the commercial salt is us'y a mixt. of RaBr_2 & BaBr_2 .—**SOL.:** W.—**Sublimes** at 900°C .—**USES:** Medic., in treat'm't of dis. of skin & mucosa, e.g., chron. ecz., ichthyosis, acne, lichen ruber, psoria., pruritus, nevi, trachoma, lupus vulgaris, tubercul., warts, scrofuloderma, epithelioma, rodent ulcer, keloids, deeply seated tumors, etc.—*Techn.*, w. calc. sulphide as luminous paint.

Radium Carbonate

$\text{RaCO}_3 = 286.01$.—Us'y a mixt. of RaCO_3 & BaCO_3 .—The pure salt is wh. or sltly brownish.—**Insol.** W.; decomp. by acids.—**ACTION & USES:** As of radium.

Radium Chloride

$\text{RaCl}_2 = 296.92$.—Us'y a mixt. of RaCl_2 & BaCl_2 .—The pure salt is wh. or sltly brownish.—**SOL.:** W.—**ACTION & USES:** As of radium; w. calc. sulphide as luminous paint.

Radium Sulphate

$\text{RaSO}_4 = 322.06$.—Us'y a mixt. of RaSO_4 & BaSO_4 .—Pure salt is wh.—**Insol.** W., acids.—**ACTION & USES:** As of radium.

Radium & Barium Chloride

Obt'd chiefly fr. pitchblende fr. Joachimsthal, Bohemia, & also fr. carnotite fr. Colorado & African Congo.—**Luminous** in the dark.—Continuously & slowly decomposes w. development of considerable energy & evolution of the so-called emanation.—**USES:** Carcinoma.

Radon

Niton.—**Rn** = 222.4.—The radium emanation left behind when an atom of helium has been driven off as an α -particle fr. an atom of Ra; can be condensed to a colorl., transpar. liq. boil'g at -61.8°C ., & finally to an opaque, glowing solid melt'g at -71°C . Decomposes W., NH_3 , & HCl into their elements.—**USES:** See under Radium (*Emanation*).

Raffinose

Mellitose; Mellitriose; Gossypose.— $\text{C}_{18}\text{H}_{32}\text{O}_{16} + 5\text{H}_2\text{O} = 594.43$.—Trisaccharide fr. beets or cotton-seed cake.—**Wh.**, cryst., sltly sweetish powd.—**SOL.:** Eas. W.—**MELT.:** 118° – 119°C . (when anhydrous).

RAGWORT, GOLDEN—see Senecio

Ranvier's Picrocarmine

A solut. of 1 Gm. carmine & 2 Gm. picric acid in 100 cc. W. & 5 cc. NH_4OH .—**USES:** Double-staining. Nuclei are colored red; connective tissue, rose-red; keratohyalin, red; keratin & elastic fibers, yellow; muscular fiber, brownish-red.

Raspberry—N.F. V

Fresh ripe fruit of varieties of *Rubus Idæus*, L., or *R. strigosus*, Mich., Rosaceæ.—**HABIT.:** Europe; Asia; cultiv. in Canada & U. S.—**CONSTIT.:** Sugar; malic & citric acids.—**USES:** As adjuvant, & flavor. Dried raspberries are used in Russia as a remedy in biliousness.

RATTLESNAKE ROOT—see Senega

REALGAR—see Arsenic Sulphide, Red

RED ALDER—see *Alnus Serrulata*

RED BOLE—see Bole, Armenian

RED CLOVER—see *Trifolium*

RED GUM—see *Eucalyptus Gum*

RED LEAD—see Lead Oxide, Red

RED MUSTARD—see Mustard, Black

RED OIL—see Acid Oleic

RED ORPIMENT—see Arsenic Sulphide, Red

RED PHOSPHORUS—see Phosphorus, Amorphous

RED POTASSIUM CHROMATE—see Potassium Dichromate

RED PRECIPITATE—see Mercury Oxide, Red, Mercuric

RED PRUSSIATE OF POTASH—see Potassium Ferricyanide

RED PUCCOON—see *Sanguinaria*

RED QUEBRACHO—see Quebracho Colorado

RED SALT—see Sodium Acetate

RED SANDALWOOD—see Saunders, Red

RED ZINC ORE—see Zincite

RED-ROOT—see *Sanguinaria*

RED-WATER-TREE BARK—see Sassy Bark

RED-WOOD—see Pernambuco

Reddish Blue

Sod., amm., or calc., salt of triphenylosaniline- & triphenylparosaniline-sulphonic acids w. some corresp. salts of the disulphonic acids.—Dark-violet powd.—**SOL.:** W.

REDDLE—see Hematite

REDRUTHRITE—see Chalcocite

REDUCED IRON—see Iron By Hydrogen

REGULUS OF ANTIMONY—see Antimony

Renaut's Hematoxylin-Glycerin

1 Gm. hematoxylin, 1 Gm. alum, 50 cc. A., 50 cc. G., & 50 cc. W. the mixt. being allowed to stand exposed to light & air to ripen, & until alcohol odor has disappeared.—USES: Rapid. stain'g nuclei.

Rennin—N.F. V—1:25000

Chymosin.—Enzyme fr. stomach of calf.—Grayish-wh. to yellowish-wh. powd.; coagul. 25,000 times its own weight of milk.—SOL.: Slowly in W. & dil. A.—USES: To coagulate milk & make it more easy of assimilation. Given to diabetics to convert the glucose of their food into lactic acid.—DOSE: 0.6–2 Gm. (10–30 grn.).—CAUT.: Rapidly deteriorates, & must be kept cool & in dark bottles.

do. —1:100,000

Coagulates 100,000 times its own weight of milk.

RENOFORM }
RENOSTYPTIN } see Epinephrine

Resaldol

Ethyl Resorcinbenzoylcarboxylate; Dioxibenzoylethyl-*o*-benzoic Acid Ethylester.— $C_6H_4(OH)_2 \cdot CO \cdot C_6H_4 \cdot COOC_2H_5 = 287.20$. —Pale-yellow, odorl., tast. cryst.—SOL.: Alkalies, A., sltly in B., E., & W.—MELT.: Abt 134° C.—ACTION: Antituberc., Intest. Antisep.—USES: Intest. tuberculosis, diarrh., catarrhal & intest. ulcerative processes.—DOSE: 0.5 Gm. (8 grn.) 2–3 t.p.d.

RESIN—see Rosin

RESIN BENZOIN—see Benzoin

RESIN BUCHU—see Barosmin (Concentration)

RESIN, CANNABIS—see Cannabinon

Resin Copaiba

Residue fr. distil. balsam copaiba.—Brown, amorph. mass.—ACTION: Antiseptic; Diur.—USES: Gonorr., cystitis, & dis. of muc. membr. of gen.-urin. org.; dropsy due to cardiac & hepatic dis.—DOSE: 0.6–1.3 Gm. (10–20 grn.); as diuret. in dropsy, 1 Gm. (15 grn.) sev'l t.p.d.

RESIN COPAL—see Copal

RESIN DAMAR—see Damar

RESIN ELEMI—see Elemi

RESIN GUAIAAC—see Guaiac

RESIN, HEMP—see Cannabinon

Resin Ipomea—U.S.P. X

Resin obt. fr. *Ipomœa orizabensis* by extraction w. A. & pptng w. W.—Brown, transluc. masses or fragments.—SOL.: A., C.; 80% in E.; not less than 5% in petrol. benzin.—ACTION: Cathartic.—DOSE: Aver., 0.2 Gm. (3 grn.).

Resin Jalap—U.S.P. X; B.P.

Fr. powd. root *Exogonium Jalapa*, Baill., by extract. w. A. & pptng w. W. (fr. *Ipomœa Purga* Hayne, B.P.).—Consists chiefly of convolvulin (Jalapin).—Yellow to brown, amorph. mass or powd.—SOL.: All prop. A.; insol. CS_2 , B., & oils.—ACTION: Hydragogue; Drastic Cath.—USES: Chronic constip., dropsy, &c.; us'y w. o. remed.—DOSE: To incr. peristalsis, 0.06–0.2 Gm. (1–3 grn.); aver. dose, 0.12 Gm. (2 grn.); as drastic cath., 0.3–0.5 Gm. (5–8 grn.).

do. —Brown, fr. Light Root

Unbleached resin fr. roots of *Ipomœa orizabensis*, Leden. (*Convolvulus orizabensis*, Pellet).—Consists chiefly of jalapin w. some orizabin (scammonin).—Brown, amorph. mass.—SOL.: A.—ACTION: Drast. Purg.—DOSE: Aver., 0.2 Gm. (3 grn.).

do. —White, fr. Light Root—Lumps or Powd.

Jalapin; Orizabin; Improperly, "Convolvulin"; Jalapurgin; ident. w. Scammonin (*Spirgatis*); see also Convolvulin.—Chief constit. of resin fr. roots of *Convolvulus orizabensis*, Pellet.—Yellowish, amorph. mass.—SOL.: A.—ACTION: Drast. Purg.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Resin Kava-Kava—Alpha Resin

Fr. root *Piper methysticum*, Forst.—Brown mass.—SOL.: A.—ACTION: Local Anesth.; Antisep.—USES: Extern., inst. of cocaine, & also f. gonorr., leucorr., & o. inflamed condit. of muc. membr. The alpha resin is more potent than the beta resin.

do. —Beta Resin

Brown resin.—USES: As of preceding; effects less pronounced.

do. —Mixed

Arom., acid, greenish-brown mass, cont. α & β resins in the proport. in which they exist in Kava.—USES &C.: As of preced.

RESIN KINO—see Kino

Resin Mezereum

Acrid resin fr. bark of *Daphne Mezereum*.—Brown mass.—SOL.: A.—ACTION: Epispastic; produces blisters on the skin.—APPL.: In 1:4 alc. solut., or 1:8–24 oint.

Resin Podophyllum Merck—U.S.P. X

"Podophyllin."—Fr. rhizome & roots *Podophyllum peltatum*, L. (May Apple; Mandrake) by extract. w. A. & pptng w. W. & HCl.—Light-brown to greenish-yellow powd., or sm., yellowish, bulky, fragile lumps becoming darker on expos. to light; faint odor; acrid, bitter taste.—Irritates muc. membr.; dust greatly inflames the eyes.—SOL.: A., soluts. KOH or NaOH, & not less than 75% resin sol. in E., & not less than 65% sol. in C., U.S.P.—CONSTIT.: Podophyllotoxin, picropodophyllin, picropodophyllinic acid, podophyllinic acid, & podophylloquercetin; only the first two are active.—ACTION: Hydragogue Cath.; Cholagogue; Anthelmintic.—USES: With o. cath. to incr. their

energy in constip., jaundice, cirrhosis of liver, cholelithiasis, dyspep., acute & chron. diarrh. & dysentery, cholera infantum, etc.; also in ankylostoma duodenale. In habitual constip., combined w. extr. hyoscyamus to prevent colicky pains, sm., continued doses act best.—**DOSE:** *Adults:* 0.05–0.1 Gm. ($\frac{3}{4}$ – $\frac{1}{2}$ grn.) in acute constipation; 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) in habitual constip.; aver. dose, 0.01 Gm. ($\frac{1}{3}$ grn.).—As cholagogue, 0.003–0.006 Gm. ($\frac{1}{20}$ – $\frac{1}{10}$ grn.).—*Childr.:* Under 1 yr 0.005 Gm. ($\frac{1}{12}$ grn.); 1–4 yrs, 0.01–0.02 Gm. ($\frac{1}{6}$ – $\frac{1}{2}$ grn.); older childr., 0.03 Gm. ($\frac{1}{2}$ grn.).—**MAX. D.:** Adults, 0.1 Gm. ($\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) p.d.—**VETER. MED.,** as lax., cholagogue, & vermifuge f. ankylostoma & worms in sheep; doses, *cattle*, 8–15 Gm. (2–4 dr.); *horses*, 5–10 Gm. (75–150 grn.); *sheep*, 1.5 Gm. (23 grn.) 2 t.p.d.; *dogs*, 0.05–0.25 Gm. ($\frac{3}{4}$ –4 grn.).

Resin Scammony—U.S.P. IX; B.P.

Fr. tubers of *Convolvulus Scammonia*, L., by extr. w. A., & precip. w. W.—**Cont.** chiefly scammonin (ident. w. jalapin, accord. to Spirgatis).—**Brown**, amorph. mass.—**SOL.:** All prop. A., not less than 95% sol. in E., & in NaOH & caustic alkalies (w. gentle heat), U.S.P.—**ACTION:** Hydragogue Cathartic.—**USES:** With o. cath. to incr. their power.—**DOSE:** 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.); as drastic cathart., 0.2–0.5 Gm. (3–8 grn.); aver. dose, 0.2 Gm. (3 grn.).

do. —White—Lumps or Powd.

"Scammonin."—The brown resin bleached.—Yellowish, amorph. masses or powd.—**USES:** As of preceding.

Resin Sumbul

Fr. root *Euryangii Sumbul*.—**Brown**, mass.—**ACTION:** Transient Stimulant; Antispasm.—**USES:** *Intern.*, spastic disturbances, chorea, delirium tremens, vesical affections, typhoid, chlorosis, diarrh., dysentery, Asiatic cholera, colic, epilepsy, hysteria, &c.—*Extern.*, as sinapism (in recent rheum.) in form of paper impregnated w. conc. alc. solut. sumbul resin.—**DOSE:** 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.).

Resin Thapsia

Fr. root *Thapsia garganica*, L. (Spanish Turpeth-root).—**Brown**, extract-like mass.—**SOL.:** 95% A., C., E., glac. acetic acid.—**ACTION:** Epispastic.—**USES:** *Extern.*, in form of plaster (Sparadrap de Thapsia) as a counterirritant to relieve pain. May cause severe erythema w. intense miliary eruption. Applied too long, leaves sore w. permanent scar.

RESIN TOLU—see Tolu

RESORCIN—see Resorcinol

Resorcinol Merck—Reagent

Resorcin. — $C_6H_4(OH)_2$ = 110.08.—**Colorl.**, acicular cryst.; slt pecul. odor.—**SOL.:** Abt 1 W. or A.; eas. E.; diffic. C.; (aqu. solut. neutral or only faintly acid to litmus).—**MELT.:** 109°–111° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.030%
Diresorcin.....	0.000%
Phenol.....	None
Free Acids.....	0.000%
Phthalic Acid.....	None
Sulphate (SO ₃).....	0.002%

USES: Examin'g certain phenols; determ'g cineol; detect'g cotton in woolen goods, & aldoses; reag. f. salvarsan (Abelin), sesame oil (Bellier; Tocher), HCl in gastric juice (Boas), levulose (Borchardt; Grünwald; Seliwanoff; Tollens), saccharin (Börnstein), Zn (Campo-Cerdan; Carobbio), albumin (Carrez), cotton seed oil (Cavalli), cane sugar (Conrad; Seliwanoff), chlorof. (Crismer; Schwarz), lignin (Czapek), allyl A. & chloric acid (Denigès), HNO₂ (Denigès; Wilson), tartaric acid (Denigès; Mohler; Wolf), organ. acids (Fenton), artif. honey (Fiehe), cocaine (Göldner), quinic acid (Guyot), invert sugar (Hartmann), caramel (Jägerschmid), wool (Jandrier), chloral hydrate (Jaworowsky; Schwarz), beet sugar (Ihl), formaldehyde (Lebbin), HNO₃ (Lindo; Piñerua), iodof. (Lustgarten), aldehydes (Michael-Ryder), acetonine (Monti), asparagin (Moulin), naphthalene (Schoorl), mineral acids (Utz), narceine (Wangerin), lignified cell tissue (Warnecke).

Resorcinol Merck—U.S.P. X—Recryst., or Powd.

Resorcin; Metadioxybenzene (or -zol); — $C_6H_4(OH)_2$ [1:3] = 110.08.—**Fr.** *m*-benzenedisulphonic acid & NaOH by fusion.—**Colorl.** or alm. colorl. cryst.; faint peculiar odor; reddish on expos.; unpleas. sweet taste.—**SOL.:** 0.9 A., 0.9 W., at 25° C., abt 0.2 W. at 80° C., freely in E. & G., & sltly C., U.S.P.—**MELT.:** 109°–111° C.—**BOIL.:** 276° C.—**ACTION:** Antisep.; Antispasm.; Antipyr.; Antiemet.; Antizymotic.—**USES:** *Intern.*, vomiting, seasick, asthma, dyspep., emphysema, gastric ulcer, cholera (infant., nostras, morbus), hay fever, diar., whoop-cough, enteritis, cystitis, & diphth.—*Extern.*, inflammatory dis. of skin, eyes, throat, nose, mouth, urethra, & vagina, & in erysipelas.—*Techn.*, tanning; manuf. explosives, intermediates, dyes; in cosmetics, photogr. films, camphor substitutes, & dyeing & printing textiles.—**DOSE:** In seasickness, chronic gastric catarrh., cholera nostras, or cholera morbus, 0.12–0.2 Gm. (2–3 grn.), ev. 1–2 hrs in 1% solut. or in powd.; ordinarily, 0.12–0.6 Gm. (2–10 grn.); aver. dose, 0.12 Gm. (2 grn.). As *antipyretic*, 1–2 Gm. (15–30 grn.).—**MAX. D.:** 3 Gm. (45 grn.) single; 10 Gm. (150 grn.) p.d.—**APPL.:** Solut. 5%–30%; as collyrium, 1:50 solut.; as enema, 1:200 solut.; as inj. in cystitis, 2%–10% solut.; as urethr. inj. 1:50 solut.; as bandage, 3% cotton or 1.5% gauze; as oint., 15%–30%.—**VETER. MED., horses**, 3–5 Gm. (45–75 grn.); *cattle*, 5–10 Gm. (75–150 grn.); *calves & pigs*, 2–4 Gm. (30–60 grn.); *dogs*, 0.1–1 Gm. ($\frac{1}{2}$ –15 grn.); as *antipyret.*, *dogs*, 0.2–2 Gm. (3–30 grn.).—**INCOMPAT.:** Acetanilid, albumin, alkalies, antipyrine, camphor, FeCl₃, menthol, spir. nitrous ether, urethane.—**CAUT.:** Keep in amber bottle.

do. Merck—Resublimed Cryst. — U.S.P. X

PROPERTIES, USES, DOSES, etc.: As of the Recryst.

do. Merck—Impalpable Powd.

Fine, wh. dry powd., partic. adapted f. insufflation in rhinolarngology, & in antiseptic toothpowders.

RESORCINOL BLUE—see Lacmoid

RESORCINOL YELLOW—see Yellow T

RESORCINOL-BISMUTH—see Bismuth Resorcinated

RESORCINOLDIMETHYLETHER—see Dimethylresorcinol

RESORCINOL-MERCURY ACETATE—see Mercury Resorcinolacetate

"RESORCINOLPHTHALEIN"—see Fluorescein

RESORCINOLPHTHALIN—see Fluorescin

Retene

Methylisopropylphenanthrene.— $(\text{CH}_3)(\text{C}_3\text{H}_7)\text{C}_6\text{H}_2(\text{CH}:\text{CH})\text{C}_6\text{H}_4 = 234.23$.—Constit. of wood-tar.—Yellowish-wh., cryst. powd.—SOL.: A., B., E., CS_2 .—MELT.: 98.5°C .—BOIL.: 390°C .

Retinol

Rosinol; Codoil; Rosin Oil.—Fr. rosin by dry distil'n.—Thick, viscid, yellow, fluoresc., oily liq.—SOL.: E., oils, oil turpentine.—BOIL.: Above 280°C .—ACTION: Antiseptic.—USES: *Intern.*, venereal affect.—*Extern.*, oint. or linim. in skin dis., & inj. in gonorr.; also solvent of phosphorus, iodol, thymol diiodide, cocaine, codeine, salol, camphor, naphthols, phenol, &c. Recom. as excipient f. phosphorus.—*Techn.*, as solvent of sulphur, in manuf. axle grease, lampblack f. lithography & printing inks, in varnishes, retinol colors, lacquers, brewers' pitch, &c.—DOSE: 0.5 cc. (8 M) 4–6 t.p.d. in caps.

Reuniol

Rhodinol.— $\text{C}_{10}\text{H}_{19}\text{OH} = 156.21$.—Fr. Reunion-geranium oil.—Alm. color., oily liq.; eas. solidifies.—USES: Inst. of oil rose in perfumery.

Revonal

An arsenic-phosphorus-strychnine prep. used as a tonic in conditions of exhaustion of horses, cattle, and domestic animals.—Used by inj.

Rhaetizite—Mineral

Cyanite; Kyanite; Disthen.—OCCUR.: Switzerland, Tyrol, Sweden, Brazil, U. S.—COMPOS.: $\text{SiO}_3(\text{AlO}_2)$.—CRYST. SYST.: Asym.—LUSTER: Vit. to pearly.—COLOR: Blue, wh., gray, green, black.—STREAK: Uncolored.—HARDN.: 5–7.25.—SP. GR.: 3.56–3.67.

RHAMNOSE—see Isodulcitol

Rhamnus Cathartica—N.F. V

Buckthorn.—Dried ripe fruit of *Rhamnus cathartica*, L., Rhamnaceæ.—HABIT.: Europe; northern Africa to middle Asia.—CONSTIT.:

Rhamnocathartin; rhamnotannic acid; rhamnin; rhamnetin.—ACTION: Cathart.; Alter.—USES: Constip., rheumat.; dropsy, &c.—DOSE: 1–4 Gm. (15–60 grn.); aver. dose, 1 Gm. (15 grn.).—FL'dextr., 2–4 cc. (30–60 M).

RHATANY—see Krameria

Rhein

Rheic Acid; Parietic Acid; Rumicin; Rhubarb Yellow.— $\text{C}_{15}\text{H}_8\text{O}_6 = 284.14$.—Color-matter fr. root *Rheum officinale*, Baillon (*Rhubarb*); oxidn. prod. of chrysarobin.—Small, yellow cryst.—SOL.: B., C., CS_2 ; sltly A.; v. sltly W.—MELT.: Abt 314°C .—ACTION: Antisept.—USES: 5%–10% oint. in skin dis., inst. of chrysarobin, in ecz. of face, neck, & genitals, &c.—CAUT.: Keep protected fr. light & away fr. eyes.

RHEUMATISM ROOT—see Dioscorea

RHEUMATISM WEED—see *Apocynum Androsaemifolium*; *Chimaphila*

RHODALLINE—see Thiosinamine

Rhodamine B

Diethylmetaminophenolphthalein.— $\text{C}_{28}\text{H}_{31}\text{N}_2\text{O}_3\text{Cl} = 478.86$.—Reddish-violet powd.—SOL.: Eas. in A., & in W. w. bluish-red color; the dil. solut. fluoresc. strongly.—USES: Dyeing wool & silk.

RHODEORETIN—see Convolvulin

RHODINOL—see Reuniol

Rhodium

Rh = 102.90; disc. in 1803 by Wollaston.—Wh., bluish-gray, hard metal, obt'd fr. platinum ores; ductile & malleable like silver.—SP. GR.: 12.1.—MELT.: 1950°C .—USES: *Techn.*, to a limited extent in manuf. alloys (rhodium steel).—In colloidal (electrolytic) form has been given subcut. & intraven. in angina, acute rheum., osteomyelitis, appendicitis, furunculosis, & o. septic dis.; also in typhoid & pneumonia.

Rhodium Chloride

Rhodium Trichloride; Rhodorhodic Chloride.— $\text{RhCl}_3 = 209.28$.—Brownish-red, deliq. powd.—SOL. W.

RHODIUM TRICHLORIDE—see Rhodium Chloride

Rhodonite—Mineral

OCCUR.: Yekaterinburg, Ural; Sweden; Hungary; U. S.—COMPOS.: $\text{SiO}_3(\text{Mn})$ w. $\text{SiO}_3(\text{MnCa})$.—CRYST. SYST.: Asym.—LUSTER: Vit. to dull.—COLOR: Brownish-red to rose-pink; often black (fr. MnO_2) on exposure.—STREAK: Wh.—Brittle; transp. to opaque.—HARDN.: 5.5–6.5.—SP. GR.: 3.4–3.68.—USES: Ornaments.

RHODORHODIC CHLORIDE—see Rhodium Chloride

Rhubarb—U.S.P. X; B.P.

Rhizome & roots of *Rheum officinale*, Baillon, *R. palmatum*, L., or o. spec. of R., grown in China & Thibet, Polygonaceæ.—HABIT.: Cen-

tral Asia; cultiv. in Europe; southern Siberia.—**CONSTIT.**: Chrysophanic acid; chrysophan; emodin; "cathartic acid"; rheotannic acid; aporetin (?); erythroretin; phaoletin (?); methyl-chrysophanic acid; rhein; rhabarberon; rheinolic acid; cinnamic & gallic acids; calc. oxalate.—**ACTION**: Aper.; Purgat.; Astring.; Stomachic.; Tonic.—**USES**: Diar., constip., hepat. diseases, & to promote appetite.—**DOSE**: *Tonic*, 0.2–0.6 Gm. (3–10 grn.); *lax.*, 0.6–1.3 Gm. (10–20 grn.); *purg.*, 1.3–2.5 Gm. (20–40 grn.); aver. dose, 1 Gm. (15 grn.).—**Comp. Extr.** (Rhub. 6, Barb. aloes 2, res. jalap 1, powd. soap 1) 0.12–0.5 Gm. (2–8 grn.).—**Conc. Solut.** (Liq. Concent., 1:2) 2–4 cc. (30–60 M).—**Hydro-alcoh. extr.**, 0.06–0.12 Gm. (1–2 grn.) tonic; 0.2–0.3 Gm. (3–5 grn.) lax.; 0.5–0.6 Gm. (8–10 grn.) purgat.—**Fld.** (Liq.) extr., 0.3–0.6 cc. (5–10 M) tonic; 1–1.3 cc. (15–20 M) lax.; 2–3 cc. (30–45 M) purgat.—**Tr.** (20%), 4–15 cc. (1–4 fl. dr.).—**Aqu. Tr.**, 4–15 cc. (1–4 fl. dr.).—**Arom. Tr.**, 2–12 cc. (30–180 M).—**Sweet Tr.**, 4–8 cc. (60–120 M).—**Syrup** (10%) 8–15 cc. (2–4 dr.); **Arom. Syrup** (3%) 8–15 cc. (2–4 dr.).—**Wine**, 4–8 cc. (60–120 M).—**INCOMPAT.**: Mineral acids; FeSO₄; infusions of catechu, cinchona, & nutgall; lead acetate; lime water; HgCl₂; AgNO₃; ZnSO₄; tartar emetic; tannic acid.

RHUBARB YELLOW—see Rhein

Rhus Glabra—N.F. IV; B.P.C.

Sumach.—Dried ripe fruit (bark also is used) of *Rhus glabra*, L., Anacardiaceae.—**HABIT.**: British America south to Florida & Arizona.—**CONSTIT.**: *Fruit*: Malic acid; tannin; gallic acid; fixed & volat. oils; red color. matter.—*Bark*: Soft resin; caoutchouc; volat. principle; albumin; gum; tannin; gallic acid, &c.—**ACTION**: Astring.; Antidiarr.; Refrig.—**USES**: *Bark*: Diar., dysent., & catarrh. condit. of bowels.—*Fruit*: In diar., & in 1:20 decoct. f. gargles, washes & lotions, sore throat & sore mouth.—**DOSE**: *Bark*: Fl'dextr., 2–4 cc. (30–60 M).—*Fruit*: Aver. dose 1 Gm. (15 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

Rhus Toxicodendron

Poison Ivy; Climbing or Three-leaved Ivy; Poison Vine; Poison Oak.—Lvs of *Rhus radicans* (Toxicodendron), L., Anacardiaceae.—**HABIT.**: North America.—**CONSTIT.**: Toxicodendrol; toxicodendric acid; resin; gum; rhus-tannic acid; wax.—**ACTION**: Irritant; Rubefac.; Nar.—**USES**: *Intern.*, in chronic eczema, incont. of urine, erysip., subacute rheum., paralysis of lower extremities, &c.—*Extern.*, in sprains, burns, stings, chilblains, gout, neural., & in eye affections.—*Techn.*, in tanning.—**DOSE**: 0.12–1 Gm. (2–15 grn.) in powd. or tinct.—**Alcoh. extr.**, 0.01–0.03 Gm. (⅓–½ grn.).—Fl'dextr., 0.06–0.3 cc. (1–5 M).—**ANTID.**: *Extern.* appl. of 5% solut. potass. permanganate, or satur. solut. lead acetate in dil. A., alkaline soluts, tinct. lobelia or grindelia, cocaine solut. (4%–8%); a 5% solut. of FeCl₃ in eq. parts G. & W. applied to the skin before exposure is said to prevent poisoning. *Intern.*, opium or coffee.

Rice's Bromine Solution

Solut. of 125 Gm. ea., Br & NaBr in W. to 1 liter.—**USES**: With solut. NaOH (sp. gr. 1.250) f. urea determ.

RICH-WEED—see Collinsonia

Ricin

Excceedingly poisonous agglutinin fr. seeds *Ricinus communis*, L., & closely allied to the bacteriotoxins; yields abt 25%–30% ash.—**Wh. powd.**—**SOL.**: 10% solut, NaCl.—**USES**: Test f. pepsin & trypsin (Jacoby; Solm).—**Toxic Dose**: 0.18 Gm. (3 grn.) per os.—**CAUT.**: Handle v. carefully; small particles in abrasions, eye or nose, may prove fatal; intraven. inject. of 0.02 Gm. (⅓ grn.) may prove fatal.

RICINSTEAROLIC-ACID DIIODIDE—see Periodyl

RIEGLER'S PAPER—see Congo Red Paper

Riegler's Solution—Test for Albumin

Solut. 5 Gm. betanaphthalenesulphonic acid in 100 cc. W.—**EXCEED.** sensit. test f. albumin. Also gives ppt. w. albumoses & peptones; that caused by albumin does not disappear on warming, but those of albumoses & peptones do.—**Sensitive** 1:40,000.

do. —Test for Nitrites

Mixt. eq. parts α-naphthionic acid & betanaphthol; or, 2 Gm. sodium naphthionate & 1 Gm. β-naphthol vigorously shaken w. 200 cc. W. & filtered. Of the solut., 10 drops are added to 10 cc. of liquid to be tested, followed by 2 drops conc. HCl; the mixt. is then shaken & 20 drops NH₄OH carefully run in—where contact of the two liquids occurs a more or less red color develops, & on shak'g a pink to red color develops, accord. to the quant. of NO₂ present.—1:100,000,000 still detected by pink coloration.

do. —Test for Uric Acid

Diazo-reagent.—Carefully heat 0.5 Gm. paranitraniline, 10 cc. W., & 15 drops conc. H₂SO₄ till dissolved, then cool, add 20 cc. W., & while keeping cold add 10 cc. 2.5% solut. NaNO₂ while shak'g. After ¼ hr add 60 cc. W., & filter.—For the test add 10 drops reagent & 10 drops 10% solut. NaOH to 10 cc. suspected liquid—if uric acid present a yellowish-red color develops, changing to blue or green.—**Reagent** not adapted for directly detecting uric acid in urine.

Ringer's Artificial Serum

0.01 Gm. NaHCO₃, 0.075 Gm. KCl, 0.01 Gm. CaCl₂, 0.6 Gm. NaCl, & 100 cc. W.

RINGWORM POWDER—see Aroroba

Ripart's Solution

0.3 Gm. CuCl₂, 0.3 Gm. cupric acetate, 1 Gm. acetic acid, & 150 cc. camphor W.—**USES**: Preserv. algae.

Rivanol

2-Ethoxy-6,9-Diaminoacridine Lactate.—C₁₅H₁₅N₃O.C₃H₃O₃ = 345.30.—**Light**-yellow, cryst. powd.—**SOL.**: Abt 15 W., 110 A. at 25° C., abt 9 hot W., & 100 boil. A.—**ACTION**: Bac-

ericidite; Antisept.—USES: On hot abscesses, furuncles, carbuncles, & o. localized purulent processes.—APPL.: 0.5%–2% solut.; 0.25%–0.5% procaine may be added for subcellular injections.

Robert's Solution—Test f. Albumin

Mix 1 vol. conc. HNO_3 w. 5 vols sat. solut MgSO_4 .—An albumin solut. floated on the test solut develops a wh. zone of pptd albumin.

Robin

Albuminoid fr. bark Robinia Pseudacacia, L. (Locust).—v. poison. powd.—SOL.: Partly in W.—CAUT.: Handle w. care; similar in poisonous action to abrin & ricin.

ROBIQUET'S SOLUBLE FERRIC PYROPHOSPHATE—see Iron Pyrophosphate with Ammonium Citrate

ROCHELLE SALT—see Potassium & Sodium Tartrate

ROCK SALT—see Sodium Chloride

ROHRBACH'S SOLUTION—see Mercury & Barium Iodide, Solution

ROMAN CHAMOMILE—see Chamomile

ROMAN VITRIOL—see Copper Sulphate

Romanowsky's Stain—For Blood Bacteria

(a) Boil 2 Gm. methylene blue medicinal, 200 cc. W., & 10 cc. 0.1*n* NaOH for 15 min., cool & add 10 cc. 0.1*n* H_2SO_4 .—(b) 1 Gm. eosine, 1000 cc. W.—For use mix 1 cc. solut. a w. 6 cc. solut. b.

do. (Leishman's Modification)—For Blood

(a): To 1 liter 1% aqu. solut. methylene blue add 0.5 Gm. Na_2CO_3 , heat 12 hrs at 65° C., then let stand 10 days at ord. temp.—(b): Diss. 1 Gm. eosine yellowish in 1 liter W.—Mix eq. vols. a & b, let stand 6–12 hrs w. freq. stir., collect ppt. on a filter, wash w. W., then dry.—For use diss. 0.1–0.15 Gm. in 100 cc. pure methyl alcohol.—Stains as follows: *Red corpuscles*, pink or greenish; *polymorphonuclear leucocytes*, red, nuclear network blue, extranuclear protoplasm colorless, & fine eosinophile granules red; *mononuclear* or *hyaline* or *large lymphocytes*, nuclei pale blue, extranuclear protoplasm blue, occasionally showing red granules; *transitional*, as w. large mononuclears, except nucleus is reniform; *small lymphocytes*, as mononuclears except nuclei deeper stained; *coarsely granular eosinophiles*, nucleus blue but not so deep, & granules pink; *basophiles*, granules purple black, nucleus red usually somewhat masked by granules overlaying it; *nucleated red cells*, nucleus alm. black w. sharp outline, extranuclear portion gray; *myelocytes*, pale red, nuclei pale blue; *blood plates*, deep red w. spiky margins, often w. pale blue peripheral zone; *bacilli* & *micrococci*, blue; *malarial parasites*, body blue & chromatin deep red.

Rosaniline

Triaminodiphenyltolylcarbinol.— $(\text{C}_6\text{H}_4.\text{NH}_2)_2\text{—C}(\text{C}_6\text{H}_3.\text{NH}_2.\text{CH}_3).\text{OH} = 319.29$.—Fr. aniline & o- & p-toluidines by oxid'n.—Brownish-red

cryst.—SOL.: A., acids, aniline, sltly W.; eslins E.—USES: *Subcut.* as functional kidney tot.; appears within 30 minutes, but max. intensity appears in 3 hrs, & total elimination in abt 24 hrs.—*Techn.*, in manuf. coal-tar dyes; test f. fatty acids in oils.

Rosaniline Acetate

Cryst. w. greenish luster.—SOL.: W. & A.; most easily solub. of the rosaniline salts.

ROSANILINE HYDROCHLORIDE MEDICINAL—see Fuchsine Medicinal

Rosaniline Hydrochloride Merck

$\text{C}_{20}\text{H}_{19}\text{N}_3.\text{HCl} = 337.75$.—Chief constit. of commercial fuchsine.—Rhombic plates.—SOL.: W.

Rosaniline Sulphate Merck

$(\text{C}_{20}\text{H}_{19}\text{N}_3)_2.\text{H}_2\text{SO}_4 = 740.60$.—Cryst. or powd. w. green luster.—SOL.: W.

ROSANILINE VIOLET—see Crystal Violet

Rose—U.S.P. X; B.P.

Red, or French, Rose; Dutch Rose; Provence Rose.—Dried petals of *Rosa gallica*, L., Rosaceæ, collected just before expanding.—HABIT.: Western Asia; Southern Europe; cultiv. widely (U. S., France, Holland, England, &c.).—CONSTIT.: Volat. oil; mucilage; coloring matter; sugar; quercitrin; quercitannic acid.—ACTION: Mild Astring.; Carmin.—USES: Perfumery & flavoring.—*Techn.*, manuf. oil rose & rose water; ingred. in confection of rose, pills of aloes & mastic, & fl'dextr.—DOSE: 1.4 Gm. (15–60 grn.).—Fl'dextr., 2–8 cc. (30–120 M).

Rose Bengal

Alkali salt of tetraiododichlorofluorescein.—Brown powd.—SOL.: Eas. in W. w. cherry-red color.—USES: Dyeing wool.

Rose Bengal 3B

Potass. salt tetraiodotetrachlorofluorescein.— $\text{C}_6\text{Cl}_4.\text{CO}_2(\text{C}_6\text{H}_5\text{KO})_2\text{CO} = 1049.84$.—Brownish-red powd.—SOL.: W.—USES: Dyeing wool bluish-red.

Rose, Dog—B.P.C.

Hips; Hip Tree; Cynosbata; Wild Brier.—Fruit of *Rosa canina*, L., Rosaceæ.—HABIT.: Europe; Northern Asia; U. S.—CONSTIT.: Malic & citric acids; sugar; tannin; color. matter.—USES: Mild astring.; domestic rem. formerly f. worms; conserve; pill excip.—DOSE: 2–5 Gm. (30–75 grn.).

ROSE, HUNDRED-LEAVED—see Rose, Pale

ROSE NAPHTHYLAMINE—see Magdala Red

Rose, Pale—B.P.C.

Hundred-leaved Rose; Cabbage Rose; Moss Rose; Pale Rose.—Petals of *Rosa centifolia*, L., Rosaceæ.—HABIT.: Western Asia.—CONSTIT.: Volat. oil; color. matter; mucilage; tannin; sugar; malates.—ACTION: Mild Carmin.—USES: Perfumery, manuf. rose water, rose oil, honey of rose, & confect. of rose.—DOSE: 1–4 Gm. (15–60 grn.).

ROSE, RED—see Rose

ROSEINE—see Fuchsine, Dye

Rosemary

Garden Rosemary.—Flowers & lvs. of *Rosmarinus officinalis*, L., Labiatae.—HABIT.: Mediterranean Basin; cultiv. in gardens.—CONSTIT.: *Flowers*: Volat. oil (1%); resin; tannin; bitter principle.—*Lvs*: Volat. oil; tannin.—*USES*: *Flowers*: Stim.; Antispasm.; Emmen.; Rubef.; *techn.*, in perfumery, & in manuf. oil rosemary.—*Lvs*: Rubefac.; Carmin.—*Extern.*, in aromatic washes.

ROSENSTIEHL'S GREEN—see Barium Manganate

ROSECOBALT CHLORIDE—see Aquopentammincobalt Chloride

Rosin—U.S.P.X; B.P.

Colophony; Abietic Anhydride; Yellow Resin; Resina, B.P.—Res. left on distil. volat. oil fr. oleoresin obt. fr. *Pinus palustris* & o. spec. of *Pinus*, Pinaceae.—OCCUR.: Rosin is chiefly supplied by the U. S.—SOL.: Freely in A., B., E., glac. acet. acid, oils, & soluts. of fixed alkali hydroxides, U.S.P. also in CS₂.—SP. GR.: 1.07–1.09 at 25° C., U.S.P.—CONSTIT.: Chiefly (80%–90%) abietic acid, or its anhydride resene (5%–6%, B.P.C.); also pinic & sylvic acids.—*USES*: *Pharm.*, as ingred. in oints, plasters, cerates, &c.—*Techn.*, manuf. varnishes, varnish & paint driers, printing inks, cements, soap, sealing wax, wood polishes, floor coverings, paper, plastics, fireworks, tree wax, sizes; f. waterproofing cardboard, walls, etc., & as source of rosin spirit & rosin oil, & pitch.—DOSE: 0.3 Gm. (5 grn.) in powd. in chron. enteritis (very rarely used).

ROSINOL—see Retinol

Rosolic Acid Paper

Wh. filter paper impregnated w. a 1% solut. rosolic acid in 60% alcoh. & dried.—*USES*: As indicator (alkalies = red; acids = yellow).

Roth's Solution—Test for Fatty Oils

H₂SO₄ satur. w. N₂O₃ vapors.—*USES*: In elaidin test f. olive oil.—The time required to solidify the oil after add'n of the test solut. is observed.—If other oils are present, various color reactions may also occur.

ROTTLERIN—see Kamalin

Rubber—B.P.C.

Caoutchouc; Elastica; Gum Elastic; India Rubber.—Prepared milk-juice (latex) of *Hevea brasiliensis*, Muell. Arg., & of sev'l o. spec. of *Hevea* (*Siphonia*; *Jatropha*), Euphorbiaceae, known in commerce as Para rubber.—HABIT.: South America (Guiana; Para), also cultiv. in Malay States, Java, & Sumatra.—Brownish-black cakes, balls, or hollow-shaped, v. elastic pieces; peculiar odor; alm. tastel.; heated w. 10% sulphur, becomes vulcanized.—SOL.: CS₂ w. 5% absol. A.; swells up in B., C., benzin, oil turpentine; insol. W., dil. acids; alkalies.—SP. GR.: When pure, less than 1.0.—MELT.: 125° C. (after being melted it remains soft & sticky on cooling).—CONSTIT.: Elastic subste (40%–60%); gelatinous subste (30%–50%);

volat. oil; fat.—*USES*: Techn., in plasters; lacquers; cements; waterproofing; insulating (electrical); dentistry; automobile tires, mats, tubing, etc.

RUBIANITE—see Fuchsine, Dye

Rubidium

Rb = 85.45; disc. by Bunsen & Kirchhoff in 1861.—Soft, gray, metal. lumps; silvery & lustrous when freshly cut; faint tinge of yellow.—SP. GR.: 1.52.—MELT.: 38° C.—BOIL.: 696° C.—CAUT.: Keep under benzene, petroleum, or o. liq. not cont. oxygen.

Rubidium Acetate

RbC₂H₃O₂ = 144.48.—Colorl. nacreous leaflets.—SOL.: W.

RUBIDIUM ALUM—see Aluminum & Rubidium Sulphate

Rubidium Bromide Merck

RbBr = 165.37.—Colorl., cryst. powd.—SOL.: v. eas. W.—ACTION: Sed.; Antiepilep.; Hypn.—*USES*: Epilepsy, delir. trem., headache, & insom., like potass. bromide.—DOSE: 0.3–0.6 Gm. (5–10 grn.) sev'l t.p.d.; as *hypnotic*, 1.8 Gm. (27 grn.).—MAX. D.: 2.5 Gm. (38 grn.) p. day.

Rubidium Carbonate Merck

Rb₂CO₃ = 230.91.—Deliq. wh. powd.—SOL.: W.; stlty A.—MELT.: 837° C.—ACTION: Antacid.—DOSE: 0.3–1.3 Gm. (5–20 grn.).—CAUT.: Keep well stoppered.

Rubidium Chloride Merck

RbCl = 120.91.—Wh., cryst. powd.—SOL.: Abt 1 W.—*USES*: Test f. HClO₄.

RUBIDIUM HYDRATE—see Rubidium Hydroxide

Rubidium Hydroxide

Rubidium Hydrate.—RbOH = 102.46.—Grayish-wh., deliq. mass.—SOL.: W., A.—CAUT.: Keep fr. air.

Rubidium Iodide Merck

RbI = 212.37.—Wh. cryst.—SOL.: Abt 1 W.—ACTION: Alter., Antisyph., &c.—*USES*: As of NaI or KI; reported to have less effect on heart or stom.; stated to be a specific f. coryza.—*Extern.*, in optic neuritis, & parenchymatous conjunctivitis, in 5% solut.—DOSE: 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.; 0.3–1.3 Gm. (5–20 grn.), B.P.C.

Rubidium Sulphate

Rb₂SO₄ = 266.96.—Colorl. rhombic cryst.—SOL.: Abt 2 W.—ACTION: Cathartic.

Rubidium & Ammonium Bromide

RbBr.3NH₄Br = 459.25.—Wh., cryst. powd.; cooling w. pungent, saline after-taste.—SOL.: W.—ACTION: Antiepilep.; Sed.; Hypn.—*USES*: Epilepsy, & as sedative, inst. of KBr.—DOSE: *Antiepilep.*, 4–8 Gm. (1–2 dr.) daily, in solut.; *hypn.*, 4–5 Gm. (60–75 grn.).

RUBIGO—see Iron Oxide, Red, Ignited

RUBIN S—see Ruby S

RUBINE—see Fuchsine, Dye

Rubus—N.F. V

Blackberry Bark.—Dried bark of rhizome of *Rubus villosus*, Aiton, or *R. nigrobaccus*, Bailey, or of *R. cuneifolius*, Pursh, Rosaceæ.—HABIT.: Eastern U. S.—CONSTIT.: Tannin; gallic acid; villosin (a saponin).—ACTION: Astring.; Tonic.—USES: Diar., dysent., &c.—DOSE: 1–2 Gm. (15–30 grn.); aver. dose, 1 Gm. (15 grn.).—Aqu. extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

RUBY ARSENIC—see Arsenic Sulphide, Red

Ruby S

Sodium Rosanilinesulphonate; Rubin S.; Acid Magenta; Fuchsine S.; Acid Fuchsine; Acid Roseine; Acid Rubine.—Chiefly sod. salts of di- & trisulphonic acids of fuchsine; e.g., sod. salt of trisulphonic acid, $(\text{CH}_3[\text{NH}_2].[\text{NaSO}_3])_3$.—[4:3]₂:C:C₆H₃:NH₂.SO₃.—Granules w. green, metal. luster, or greenish-brown powd.—SOL.: W. w. cherry-red color; v. sltly A.—USES: *Techn.*, color'g & dye'g wool & silk in acid bath. Not f. cotton. Satur. aqu. solut. used in microscopy f. stain'g bacteria. Improperly f. color. wines to imitate claret.

RUBY WOOD—see Saunders, Red

Rue—B.P.C.

Herb of *Ruta graveolens*, L., Rutaceæ.—HABIT.: Southern Europe to the Orient.—CONSTIT.: Volat. oil; rutin.—ACTION: Abortifac.; Rubefac.; Stim.; Emmen.; Nervine.—USES: Amenor., flatul., hysteria, &c.—DOSE: 1–2 Gm. (15–30 grn.).—Alcoh. or aqu. extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

RUFIGALLOL—see Acid Rufigallic

Rumex—N.F. V

Yellow, or Curled, Dock.—Dried root of *Rumex crispus*, L., or of *R. obtusifolius*, L., Polygonaceæ.—HABIT.: Europe; North America.—CONSTIT.: Chrysophanic acid; emodin; tannin; calcium oxalate; rumicin; lapathin.—ACTION: Astring.; Alter.; Tonic; Lax.; Antiscorbut.—USES: Skin dis., diar., scrof., syph., &c.—DOSE:

1–4 Gm. (15–60 grn.) us'y as fl'dextr.; aver. dose, 4 Gm. (1 dr.).—Extr., 0.2–0.6 Gm. (3–10 grn.).

RUMICIN—see Rhein

Rumin (Eclectic)

Alcoh. extr. fr. root *Rumex crispus*, L.—Brown powd.—SOL.: A.—ACTION: Alter.; Astring.—USES: Scrof., syph., & cutan. affect.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

RUSAT, or RUSWUT—see *Berberis Aristata*

Ruthenium—Fused

Ru = 101.70; disc. by Claus in 1845.—Hard, heavy, wh., lustr., brittle metal. pieces.—SP. GR.: 12.26.—MELT.: 2450° C. (?) ; v. diffic. fusible.—Insol. acids; alm. insol. in aq. regia.

Ruthenium Chloride

Ruthenium Sesquichloride; Ruthenic Chloride.—RuCl₃ = 208.08.—Deliq., brownish-red, cryst. mass.—SOL.: W.—USES: As test f. SO₃ (Lea).

RUTHENIUM OXYCHLORIDE, AMMONIATED—see Ruthenium Red

Ruthenium Red

Ruthenium Oxychloride, Ammoniated.—Ru₂(OH)₂Cl₄.7(NH₃) + 3H₂O = 552.53.—Brownish-red powd.—SOL.: W.—USES: In 1:5,000–10,000 solut. as micros. stain. & test f. pectin, plant mucin, gum, animal tissues, & bacteria (w. add. of acetic acid when nuclei are to be stained).

RUTHENIUM SESQUICHLORIDE—see Ruthenium Chloride

Rutile—Mineral

OCCUR.: Limoges, France; Norway; Sweden; Urals; Scotland; Iceland; U. S.—COMPOS.: TiO₂; or may be considered as titanium titanate, TiTiO₄, bec. of its isomorphism w. zircon.—CRYST. SYST.: Tetrag.—LUSTER: Adamantine to submetallic.—COLOR: Reddish-brown, red, black, yellowish; deep red by transmitted light.—STREAK: Light-brown.—CLEAV.: Poor prismatic.—FRACT.: Brittle; uneven to subconchoidal.—Transp. to opaque.—HARDN.: 6–6.5.—SP. GR.: 4.18–4.25.—USES: Source of titanium comp'ds; also in ceramic industry.

S

Sabadilla—B.P.C.

Cevadilla; Indian Barley-caustic.—Seeds of *Schœnocaulon officinalis*, A. Gray (*Asagrea officinalis*, Schlechtendal & Chamisso; *Sabadilla officinarum*, Brandt), Liliaceæ.—HABIT.: Mexico to Guatemala & Venezuela.—CONSTIT.: Veratrine; cevadine; sabadilline; sabadine; sabadinine; sabatrine; veratridine; angelic acid; cevadic (methylcrotonic, sabadillic) acid; veratric acid; fixed oil; resin.—USES: Emet.; Cathart.; Vermif.; Insecticide (f. lice).

—*Techn.*, as source of veratrine.—DOSE: 0.3–1 Gm. (5–15 grn.) as a teniaf. or vermif.—Fl'dextr., 0.3–1 cc. (5–15 M).

Sabadine

C₂₀H₅₁NO₃ = 541.56.—Alkaloid fr. seeds *Asagrea officinalis*, Schlecht. & Cham.—Discovered in the laboratory of E. Merck in 1890.—Wh., cryst. need.—SOL.: Sltly W., E.; eas. A.—MELT.: 238°–240° C., w. decomp.—ACTION: Sternutatory.

Sabadine Hydrochloride

$C_{29}H_{51}NO_8.HCl + 2H_2O = 614.06$.—Wh. need.
 SOL.: W., A.—MELT.: 282° – 284° C., w. decomp.

Sabadine Nitrate

$C_{29}H_{51}NO_8.HNO_3 = 604.58$.—Colorl. cryst.—
 SOL.: Sltly W.

Sabadinine

$C_{27}H_{45}NO_8 = 511.50$.—Alkaloid fr. seeds *Asa-græa officinalis*, Schlecht. & Cham.—Discovered in the laboratory of E. Merck, in 1890.—Wh. need.—SOL.: W., A., C.; sltly E.—Devoid of sternutatory properties, in contrast w. sabadine.

Sabadinine Bisulphate

$C_{27}H_{45}NO_8.H_2SO_4 + 3H_2O = 663.63$.—Wh. need.—SOL.: abt 39 cold, abt 17 boil., W.

Sabadinine Hydrochloride

$C_{27}H_{45}NO_8.HCl = 547.97$.—Wh. cryst.—SOL.: W. A.

Sabal—N.F. V; B.P.C.

Saw Palmetto.—Partly dried ripe fruit of *Sere-noa serrulata*, Hooker fil. (Sabal S., R. & S.), *Palmæ*.—HABIT.: South Carolina to Florida & West Indies.—CONSTIT.: Fixed & volat. oil; resin; sugar.—ACTION: Pectoral; Sed.; Diur.; Aphrodis.—USES: Bronch., pneum., phth., & sex. debility.—DOSE: 1–1.6 Gm. (15–25 grn.); aver. dose, 1 Gm. (15 grn.).—Extr., 0.5–0.6 Gm. (8–10 grn.).—Fld. (Liq.) Extr., 2–8 cc. (30–120 M); aver. dose, 2 cc. (30 M).

Sabbatin

Glucoside fr. *Sabbatia Elliotii*.—Brownish powd.—SOL.: W., alkalies.—ACTION: Antiper.; Antipy.—USES: Inst. of quinine in intermit. & remit. fevers; also in dyspe. & menstrual disturb.—DOSE: 0.01–0.02 Gm. ($\frac{1}{16}$ – $\frac{1}{8}$ grn.).

Sabromin

Calbroyen; Calcium Dibrombehenate.— $(C_{21}H_{41}Br_2COO)_2Ca = 1034.63$.—Yellowish-wh., odorl., tastel. powd.; abt 29% Br.—SOL.: Acetone, B., C., E., benzin, CCl_4 ; insol. W., A., N.N.R.—USES: As of bromides in hysteria, neurasth., nerv. excitement, anxiety, palpitation, nerv. insomnia, & epilepsy.—DOSE: 0.3–1.3 Gm. (5–20 grn.).—CAUT.: Keep dark.

SACCHARATED LIME—see "Calcium Saccharate"

Saccharin Refined Merck—U.S.P. X—Powd.

Gluside; Benzosulphinide; Benzoylsulphonic Imide; Garantose; Glusidum; Glycophenol; Glycosine; Saccharinol; Saccharinose; Saccharol; Saxin; Sykose; Zuckerin; Glusimide; Anhydro-orthosulphaminebenzoic Acid; Neo-saccharine.— $C_6H_4(CO).SO_2.NH = 183.14$.—Wh., odorl., microcryst. powd.; intensely sweet. taste; 300–500 times as sweet as cane sugar; sweet taste still detected in 1:70,000 solut.—SOL.: 290 W., 31 A. at 25° C., abt 25 boil. W., sltly in C., E., & eas. in alkalies, U.S.P.; 12 acetone, B.P.; abt 50 G.—MELT.: Not below 222° C., & when pure, at abt 228° C., U.S.P.—

USES: Cystitis; sweeten food of diabetics & obese subjects; to cover taste of bitter & acrid remed.; also as sweetener in household economy; in manuf. champagne, sweetening ice cream, confectionery, beverages, oils & essences.—DOSE: 0.12–0.3 Gm. (2–5 grn.) in solut. w. sod. bicarb.; aver. dose as sweetener in diabet., etc., in 1:10,000 solut., or inst. of a "lump" of sugar, 0.03 Gm. ($\frac{1}{2}$ grn.), U.S.P.

do. Merck — "Soluble" Gluside — U.S.P. X—Cryst. or Powd.

300–500 times as sweet as sugar.—SOL.: 1.2 W., abt 50 A., at 25° C.—USES & DOSES: As of preceding.

do. Merck—Tablets

Each tablet eq. in sweetness to a large lump sugar.—USES: Sweeten, tea, coffee, cocoa, &c.

SACCHARINOL, SACCHARINOSE, or SACCHAROL—see Saccharin

SACCHAROMYCES CEREVISIÆ—see Yeast, Dry

SACCHAROSE—see Sucrose

Sachs's Solution—Test for Dextrose (Glucose)

Solut. 18 Gm. HgI_2 , 25 Gm. KI, & 80 Gm. KOH in W. to 1000 cc.—40 cc. solut. (= 0.72 Gm. HgI_2) = abt 0.15 dextrose, or 0.1072 Gm. invert. sugar.—Solut. reduced by boiling.

SACRED BARK—see Cascara Sagrada

Safflor-Carmine

Safflor-red.—Coloring matter fr. *Carthamus tinctorius*, L.—Deep-red, pasty mass.—See also Carthamin.

SAFFLOR-RED—see Carthamin; Safflor-carmine

Safflor-Yellow

$C_{24}H_{30}O_{15} = 558.36$.—Yellow color. matter fr. *Carthamus tinctorius*, L.—SOL.: W., A.; aqu. soluts. rapidly decomp.

SAFFLOWER—see Carthamus

Saffron—N.F. V; B.P.C.

Crocus; Spanish (or French) Saffron.—Stigmas of *Crocus sativus*, L., Iridaceæ.—HABIT.: Western Asia; Southern Europe (France, Italy, Spain & Austria).—Flattish-tubular, almost threadlike stigmas abt $\frac{1}{4}$ in. (3 Cm.) long; orange-brown color; strong peculiar, arom. odor; bitterish, arom. taste.—CONSTIT.: Volat. oil (abt 1%); picrocrocin (bitter glucoside); crocin (polychroit); fixed oil; wax.—ACTION: Stomachic; Antispasm.; Emmen.; Antihysteri.; Diaphor.; Anodyne.—USES: *Intern.*, chiefly to hasten eruptions in exanthematous diseases.—*Techn.*, as flavor & color.—DOSES: 0.3–1 Gm. (5–15 grn.) in powd. or infus.—Alcoh. extr., 0.12–0.36 Gm. (2–6 grn.); rarely used.—Tr. (1:20), 0.3–1 cc. (5–15 M).

SAFFRON, AFRICAN, or AMERICAN, or BASTARD—see Carthamus

SAFFRON BRONZE—see Tungsten Bronze, Orange

SAFFRON, DYER'S, FALSE, or THISTLE—see Carthamus

SAFRANINE—see Methylene Violet

Safranine

Aniline Rose, or Pink.—Mixt. obt'd by oxid'g *p*-tolylenediamine, aniline, & *o*-toluidine in molec. propor.—Brown powd.—SOL.: W., A.—USES: *Techn.*, dyeing cotton red, mord. w. tannin & tartar emetic; & to vary shade of alizarine red in calico print'g.

Safranin T

Mixt. of tolusafranines & phenoltolusafranines.—Reddish-brown powd.—SOL.: W. & A., w. red color.—USES: Investigation of subterranean waters; dyeing cotton; printing calico.

Safrol Merck—Sp. Gr. 1.108

Shikimol (Eykmann).—Odorous constit. of oils sassafras (abt 80%), camphor-tree, & o. oils.—Methylene ester of allyl catechol.—Colorl. or sltly yellow liq.; pure: sassafras odor.—SOL.: 1 A. (90%), 30 A. (70%), & all proport. C., E., B.P.C.—SP. GR.: 1.108 at 15° C. (1.098–1.10 at 25° C., U.S.P. VIII).—BOIL.: Abt 233° C. (U.S.P. VIII).—Solidif. at –20° C.—ACTION: Tonic; Arom.; Anodyne; Carmin.—USES: *Intern.*, inst. of oil sassafras in subacute rheum.; *extern.*, w. camphorated oil as liniment in chron. rheumatism.—*Techn.*, in perfumery, in denaturing fats in soap making, & in manuf. heliotropin.—DOSE: 0.12–0.8 cc. (2–12 M).

SAGE—see Salvia

SAGE BUSH—see Artemisia Frigida

Sagrotan

Mixt. of 8% chlorcresol, 4% chlorxylenol, 22% soap, 9% alcohol, & 57% water.—Reddish-brown liq.; strong phenolic taste.—SOL.: A., C., E., G.; up to abt 7% in W.—ACTION: Antisept.; Germicide.—USES: As irrigant, applic. to wounds, etc., in 1:50 dilut'n; f. disinf. excreta, 1:100–20 dilutions.

Sahli's Borax-Methylene Blue

0.8 Gm. borax, 0.75 Gm. methylene blue, & 80 cc. W.—USES: Stain. nerve centers deep-blue, ganglia cells light-green, & glia cells blue.—Adapted also f. detect. any microbes present.

ST. BARTHOLOMEW'S TEA—see Maté

ST. IGNATIUS' BEAN—see Ignatia

SAJODIN—see Calcium Iodobehenate

SAL ACETOSELLA—see Potassium Binoxalate; Potassium Tetroxalate

SAL AMMONIAC—see Ammonium Chloride

SAL BARNIT—see Zinc Tannate

SAL ENIXUM—see Potassium Bisulphate

SAL ETHYL—see Ethyl Salicylate

SAL POLYCHRESTUM—see Potassium Sulphate

SAL PRUNELLE—see Potassium Nitrate with Potassium Sulphate

SAL SODA—see Sodium Carbonate, Technical

SALACETIN—see Acid Acetylsalicylic

SALAMID—see Salicylamide

SALAZOLON—see Salipyrine

Salen

Mixt. of ethyl- & methyl-glycollic esters of salicylic acid.—Wh. cryst. at –5° C.; oily liq. at ord. temp.—SOL.: Eas. A., E., B., & castor oil; diffic. olive oil.—ACTION: Antirheum.—USES: Rheumat., &c.—APPL.: By inunct. in mixt. w. eq. part A., or olive-+castor-oil (2:1).

Salep

Dried tubers of sev'l spec. of Orchis, Orchidaceae.—HABIT.: Europe; Asia Minor.—CONSTIT.: Mucilage; starch.—ACTION: Nutrient; Demulc.—USES: Vehicle f. acrid remedies.

SALETIN—see Acid Acetylsalicylic

SALICAINE = Saligenin

Salicin Merck—U.S.P. X

(OH)₄.C₆H₇.O₂.C₆H₄.CH₂.OH = 286.21.—Gluco-side fr. sev'l spec. of Salix & Populus; comp'd of saligenin (salicyl alcohol) & dextrose.—Lustr., wh. need. or cryst. powd.; v. bitter taste.—SOL.: 23.5 W. & 88.5 A. at 25° C., 3.3 W. at 80° C., 30 A. at 60° C., insol. C., E., U.S.P.; (28 W., 80 A. [90%], at 15.5° C., B.P.).—MELT.: 199°–202° C.—ACTION: Tonic; Antiper.; Antirheum. Acts like salicylic acid, but without unpleas. by-effects of latter.—USES: Acute & chron. rheum., malaria, typhoid, neuralg., atonic dyssep., general malaise, & chorea. When taken it decomp. into saligenin & salicylic acid.—DOSE: *Antipyr.*, 0.6–2 Gm. (10–30 grn.); *bitter tonic*, 0.12–0.3 Gm. (2–5 grn.); aver. dose, 1 Gm. (15 grn.).—MAX. D.: 10 Gm. (150 grn.) p.d.

SALICYLALDEHYDE—see Aldehyde Salicylic

Salicylamide

Salamid.—C₆H₄(OH)CONH₂ = 137.10.—Fr. methyl salicylate by NH₃.—Colorl. to sltly pink cryst. powd.—SOL.: A., C., E., hot W.; sltly cold W.—MELT.: 138° C.—ACTION: Antisept.; Analg.; Antipyr.—USES: Rheum., neuralg., fevers, chorea, gout, &c., like salicylic acid.—DOSE: 0.2–0.3 Gm. (3–5 grn.) ev. 3 hrs.—MAX. D.: 1 Gm. (15 grn.) p.d.

SALICYLPARAPHENETIDIN—see Malakin

SALICYLQUININE—see Saloquinine

Salicylresorcinolketone

2,2,6-Trioxybenzophenone.—C₆H₄(OH)CO.C₆H₃(OH)₂ = 230.15.—Fr. salicylic acid & resorcinol by heat.—Wh. to reddish-wh. cryst. powd.—SOL.: Hot A., B.; sltly W.—MELT.: 133° C.—ACTION: Antisept.; Antipyr.; Analg.—USES: Typhoid fever, diar.; rheum.; & malaria.—DOSE: 0.3–1 Gm. (5–15 grn.).—MAX. D.: 1 Gm. (15 grn.) single; 4 Gm. (60 grn.) p.d.

Saliformin

Hexamethylenamine, or Methenamine, Salicylate Merck; Formin Salicylate.—(CH₂)₆N₄.C₆H₄OH.COOH = 278.24.—Wh., cryst. powd.;

acidulous taste.—**SOL.**: Eas. in W. or A.—**ACTION**: Urinary Antisept. & Uratolytic.—**USES**: Gravel, gout, cystitis, & bacterial dis. of urinary tract & of gall bladder.—**DOSE**: 0.3–0.75 Gm. (5–12 grn.) 3 t.p.d.

Saligenin

Ortho-hydroxybenzylalcohol; Salicyl Alcohol; 1,2-Phenolmethylol.— $\text{OH.C}_6\text{H}_4\text{CH}_2\text{OH}$ = 124.10.—**Fr.** salicin by acids or ferments, or fr. phenol, methylene chloride, & NaOH by heat.—**Colorl.** plates or cryst. powd.—**SOL.**: W., C., & oils, & eas. A., E.—**MELT.**: 85°–86° C.—**ACTION**: Antirheum.; Antipodagr.; Loc. Anesthetic.—**USES**: *Intern.*, as of salicylic acid in acute artic. rheum. & gout; *extern.*, as of procaine, but said to be less toxic, & with it anesthesias lasts longer, hence add'n of epinephrine not necess.—**APPL.**: As of procaine.—**DOSE**: 0.5–1 Gm. (8–15 grn.).

SALINAPHTHOL—see Betol

SALIPYRAZOLON—see Salipyrine

Salipyrine

Antipyrine, or Phenazone, Salicylate; Salazolon; Salipyrazolone.— $\text{C}_{11}\text{H}_{12}\text{N}_2\text{O.C}_6\text{H}_4\text{OH.CO}_2\text{H}$ = 326.25.—**Wh.**, odorl., sltly sweet cryst. powd.—**SOL.**: Eas. A., less readily E., 200 cold & 40 boil. W.—**MELT.**: 91°–92° C.—**ACTION**: Antipyr.; Antirheumatic; Analg.—**USES**: Sciatica, acute artic. & chron. rheum. influenza, chorea, pleurisy, dysmenor.; metrorrhagia, espec. bef. the climacteric.—**DOSE**: 0.3–1 Gm. (5–15 grn.); in metrorrhagia, 1 Gm. (15 grn.) 3 t.p.d., before flow.—**MAX. D.**: 2 Gm. (30 grn.) single, & 4 Gm. (60 grn.) p.d.—**INCOMP.**: Nitrites.

Salt

Borneol Salicylate.— $\text{C}_{10}\text{H}_{17}\text{O.CO.C}_6\text{H}_4\text{OH}$ = 274.26.—**Oily**, brown, liq.; slt odor & taste.—**SOL.**: All prop. A., E., oils; sltly G.; insol. W.—**Decomp.** by alkalis, & in intestines, into its constituents.—**ACTION**: Antirheum.; Antineural.—**USES**: Musc. & artic. rheum., neuralg., pleurisy, &c.—**APPL.**: W. eq. part olive oil, twice p.d. on affected part.

SALMESTER—see Mesotan

SALOCHININ—see Saloquinine

SALOCOLL—see Phenocoll Salicylate

Salol Merck—U.S.P. X

Phenyl, or Phenol, Salicylate.— $\text{C}_6\text{H}_4(\text{OH}).\text{COOC}_6\text{H}_5[1:2]$ = 214.15.—**Wh.**, small cryst. or powd.; aromat. odor & taste.—**SOL.**: 6670 W. & 6 A. at 25° C., & v. sol. in B., C., E., & oils, U.S.P.; 10 liq. paraffin, 4 almond oil, oil sandalwood, oil turpent., bals. copaiba, & v. sltly G., B.P.C.—**MELT.**: 41°–43° C.—**ACTION**: Antisept.; Antirheum.; Antipyr.—**USES**: *Intern.*, typhoid fever, diar., dysent., flatulence, ferment. dyspep., rheum., grip, & cystitis; *extern.*, wounds, burns, gonorrh., sores, &c. Also coating enteric pills; such pills should be taken one hr or more after meals & no oil w. them. The remedy should not be given in gelat. capsules, because it is prone to form salol concretions in

the intestines.—**DOSE**: 0.2–1 Gm. (3–15 grn.); aver. dose, 0.3 Gm. (5 grn.); as *antipyr.*, 1.3–3 Gm. (20–45 grn.).—**INCOMPAT.**: Br-water; camphor, monobromated camphor, phenol, chloral hydrate, naphthalene, thymol, or urethane, in trituration; FeCl_3 .

Salol Camphorated

Mixt. 3 parts salol w. 2 parts camphor.—**Yellowish**, oily liq.—**SOL.**: A., C., E., oils.—**ACTION**: Local Anesth.; Antisept.; Analg.—**USES**: Toothache, earache, neural., rheum., typhoid fever, otorrhea, carbuncles, furuncles, & skin dis.—**DOSE**: 0.2–0.6 cc. (3–10 M).

SALOOP—see Sassafras

SALOPHEN—see Phenetsal

Saloquinine

Salochinin; Salicylquinine; Quinine Salicylic Ester.— $\text{C}_6\text{H}_4\text{OH.CO.O.C}_{20}\text{H}_{23}\text{N}_2\text{O}$ = 444.38.—**Tastel.**, wh., cryst. powd.; abt 73% quinine.—**SOL.**: Diffic. A., E.; sol. dil. acids, C.; insol. W.—**MELT.**: 141° C.—**ACTION**: Antipyr.; Antimycotic; Febrif.; Antineural.; Analg.—**USES**: Typhoid & o. fevers, neural., neuroses, &c., inst. of quinine. 0.12 Gm. (2 grn.) saloquinine = 0.06 Gm. (1 grn.) quinine.—**DOSE**: 0.3–2 Gm. (5–30 grn.).—**INCOMPAT.**: Acids.

Saloquinine Salicylate

$\text{C}_6\text{H}_4\text{OH.CO.O.C}_{20}\text{H}_{23}\text{N}_2\text{O.C}_6\text{H}_4\text{OH.CO}_2\text{H}$ = 582.46.—**Wh.**, tastel. powd.—**SOL.**: B., C., hot A.; sltly W.—**MELT.**: Abt 179° C.—**ACTION**: Antineural.; Antirheum.—**USES**: Neural., neuritis, acute artic. rheumat., lancinating pains in tabes, gonorrheal inflammations, &c.—**DOSE**: 1 Gm. (15 grn.) 3–4 t.p.d.

SALSEPARIN—see Smilacin

Salt, Carlsbad, Merck—Artificial—N.F. V—Dry, Powd.

1 (Dry): 50 Na_2SO_4 & 1 K_2SO_4 w. 9 NaCl & 18 NaHCO_3 .—2 (Cryst.): 1 K_2SO_4 , 9 NaCl, 14 Na_2CO_3 (monohydr.), & 50 Na_2SO_4 (cryst.).—Of these mixt's 1 Gm. dry or 1.75 Gm. cryst. salt + 200 cc. W. is approx. equiv. to an eq. vol. Carlsbad water (Sprudel).—**SOL.**: W.—**USES**: Chron. constip., disorders of liver, diabetes, gout, &c.—**DOSE**: 4–8 Gm. (1–2 dr.).

do. —Artificial, Effervescent—N.F. V

26.6 artif. Carlsbad salt (dry), 40 sod. bicarb., 15.7 tartaric acid, & 25 citric acid.—Of this mixt. 6 Gm. + 200 cc. W. is approx. equiv. to an equal vol. Carlsbad water (Sprudel).—**DOSE**: Aver., 6 Gm. (90 grn.).

Salt, Crab Orchard, Merck—Artificial—Gran.

Approx. same compos. as the salts obt. by evap. waters of Crab Orchard Springs, Ky.; consists largely of MgSO_4 w. some Na_2SO_4 , NaCl, K_2SO_4 & a sm. quant. iron oxide.—**ACTION**: Saline Purg.—**DOSE**: 1–2 teaspoonfuls.

SALT, GLAUBER'S—see Sodium Sulphate

Salt, Kissingen, Artificial—N.F. V

16 KCl, 330 NaCl, 110 MgSO_4 , & 99 NaHCO_3 .—Of this mixt. 1.5 Gm. + 200 cc. W. approx.

equiv. to an equal vol. Kissingen water (Rakoczi).—DOSE: 1–2 Gm. (15–30 grn.).

do. —Effervescent—N.F. V

20 artif. Kissingen salt, 20.3 NaHCO_3 , 4.7 tartaric acid, & 12.5 citric acid.—Of this mixt. 5.5 Gm. + 200 cc. W. approx. equiv. to an eq. vol. Kissingen water (Rakoczi).—DOSE: 4–8 Gm. (1–2 dr.); aver. dose, 5.5 Gm. (80 grn.).

SALT, LEMON—see Potassium Binoxalate

SALT, LEMONS, ESSENTIAL—see Potassium Tetroxalate

Salt, Lithium Citrate, Effervescent—N.F. V

Lithium citr. 2.5, sod. bicarb. 28.5, tartaric acid 15, & citric acid 9.75.—DOSE: Aver., 8 Gm. (2 dr.).

SALT OF SATURN—see Lead Acetate

SALT, PHOSPHORUS—see Sodium & Ammonium Phosphate

Salt, Potassium Bromide, Effervescent—N.F. IV

KBr 8.3, NaHCO_3 26.5, tartaric acid 10.2, and citric acid 12.5.—DOSE: 4–8 Gm. (1–2 dr.); aver. dose, 6 Gm. (90 grn.).

do. —Compound—N.F. V

Caffeine 0.4, KBr 4.15, lithium carbonate 2.1, NaHCO_3 29.35, tartaric acid 9, & citric acid 12.5.—DOSE: 4–8 Gm. (1–2 dr.); aver. dose, 6 Gm. (90 grn.).

SALT ROCK MOSS—see Chondrus

Salt, Schleich's—Tablets

	No. 1 Strong	No. 2 Normal	No. 3 Weak
Cocaine Hydrochloride	Gm. 0.2	Gm. 0.1	Gm. 0.01
Morphine Hydrochloride	0.025	0.025	0.005
Sodium Chloride	0.2	0.2	0.2

Used in the infiltration-anesthesia by Schleich's method. Ea. tablet, bef. use, is diss. in 100 cc. sterilized W.; the solut. is then ready for use without further preparation.

SALT SOLUTION, NORMAL—see Solution Sodium Chloride, Physiological

SALT, SORREL—see Potassium Binoxalate; Potassium Tetroxalate

Salt, Vichy—Artificial—N.F. V

84.6 NaHCO_3 , 3.85 K_2CO_3 , 8 MgSO_4 & 7.7 NaCl .—Of this mixt. 1 Gm. + 200 cc. W. approx. equiv. to 200 cc. Vichy water (Grand Grille).—DOSE: 1 Gm. (15 grn.).

do. —Artificial, Effervescent—N.F. V

25 artif. Vichy salt, 48.55 NaHCO_3 , 16.45 tartaric acid, & 25 citric acid.—Of this mixt. 3.75 Gm. + 200 cc. W. approx. equiv. to 200 cc. Vichy water (Grand Grille).—DOSE: Aver., 4 Gm. (1 dr.).

do. —Artificial, Effervescent, w. Lithium.—N.F. IV

Artific. vichy salt 25, lith. citrate 8.33, NaHCO_3

44.14, tartaric acid 12.54, & citric acid 25.—DOSE: 4–8 Gm. (1–2 dr.); aver. dose, 6 Gm. (90 grn.).

SALTPETER—see Potassium Nitrate; Sodium Nitrate, Technical

SALTS, MORDANT—see Aluminum Acetate; Antimony & Potassium Tartrate

SALTS TARTAR—see Potassium Carbonate, Technical

SALTS, WATER-PROOFING—see Aluminum Acetate

SALUFER—see Sodium Silicofluoride

SALUMIN, SOLUBLE—see Aluminum Salicylate Ammoniated

SALVARSAN = Arsphenamine

SALVARSAN SODIUM = Arsphenamine Sodium

Salvia—B.P.C.

Sage.—Dried lvs of *Salvia officinalis*, L., Labiatae.—HABIT.: Southern Europe; cult. U. S., Eng., France, &c.—CONSTIT.: Volat. oil (1%–3%), resin, tannin, bitter prin., gum.—ACTION: Stim.; Tonic; Astring.; Vulner.; Condiment.—USES: Chiefly as condiment.—Extern., in form of infus. f. ulcers of mouth & throat, in nasal sores, &c. Also as gargle.—DOSE: 1–4 Gm. (15–60 grn.) in powd. or 1:20 infus.

Salyrgan

A Mercury compound of Sodium Salicylallylamidoacetate.— $(\text{CO.NH.C}_3\text{H}_5.\text{C}_3\text{H}_6\text{O}_3\text{Hg}).\text{C}_6\text{H}_4.\text{OCH}_2\text{COONa} = 547.75$.—Alm. wh., odorl., cryst. powd.—SOL.: Abt 1 W., 3 A., 2 methyl A.; insol. E.—ACTION: Antisyphil.; Diuret.—DOSE: 0.5–2 cc. (8–30 M) of a 10% solut. by intraven. or intramuscl. inj.

Salysal

Salicylsalicylic, or Disalicylic, Acid; Diplosal.— $\text{OH.C}_6\text{H}_4.\text{COO.C}_6\text{H}_4.\text{COOH} = 258.15$.—Colorl., pract. odorl. & tastel., cryst. powd.; permanent in air.—SOL.: A., E., alkalies; diffic. cold B.; alm. insol. W. & dil. acids.—MELT.: Abt 147° C.—Is hydrolyzed by the intest. juices, & then affords 110% salicylic acid, which is rapidly & eas. taken up by the system.—ACTION: Efficient succedaneum f. salicylic acid & the usual salicylic prep'ns & derivatives.—USES: Acute, chron., & musc. rheum., neuralgia, pleurisy, cystitis, tonsillitis, influenza, lumbago, etc., like salicylic acid & salicylates. Reported twice as efficient as sod. salicyl. Being insol. in gastric juice, it exercises little or no irritant action on the gastric mucosa.—DOSE: 0.3–1 Gm. (5–15 grn.) 5–6 t.p.d. single; up to 5–6 Gm. (75–90 grn.) p.d.

do. —Tablets, 5 Grains Each

SALZBURG VITRIOL—see Copper Sulphate

Samarските—Mineral

Uranotantalite.—OCCUR.: Mitchell Co., N. Carolina, U. S.—COMPOS.: $8(\text{Nb}_2\text{O}_7)_3\text{R}_4 + \text{U}_5\text{O}_{21}\text{R}$, in which R = Fe, Yt, Ce, Er.—CRYST. SYST.: Rhomb. (?).—LUSTER: Vitr.—COLOR:

Coal black.—**STREAK:** Dark reddish-brown.—**FRACT.:** Conch.—**Brittle;** nearly opaque.—**HARDN.:** 5–6.—**SP. GR.:** 5.6–5.8.—**USES:** Source of niobic & tantallic acids, & the rare earths.

Sambucus—N.F. V; B.P.C.

Elder; American Elder; Sweet Elder.—Flowers of *Sambucus canadensis*, L., or of *S. nigra*, L., *Caprifoliaceae*.—**HABIT.:** U. S., east of Rocky Mts.—**CONSTIT.:** Volat. oil; resin; fat; mucilage; tannin.—**ACTION:** Stim.; Carmin.; Diaphor.; Sudorif.; Diuret.—**USES:** Febrile affect., scrof., rheum., syph., dropsy, &c.; prepar'g elder flower water.—*Extern.*, as fomentation, poultice, &c.—**DOSE:** 2–4 Gm. (30–60 grn.) as infus., fl'dextr., &c.; aver. dose, 4 Gm. (60 grn.).

do. —Leaves—B.P.C.

European Elder; Common Elder; German Elder; Parsley Elder.—Lvs & flwrs of *Sambucus nigra*, L., *Caprifoliaceae*.—**HABIT.:** Europe; Northern Africa to Middle Asia.—**CONSTIT.:** Sambucine; sambunigrin; volat. oil; tannin; resin; gum.—**USES:** Prepar'g oint's for domestic uses for bruises, wounds, etc.

SANDALWOOD, RED—see Saunders, Red

Sandalwood, White—N.F. V

White, or Yellow, Saunders.—Heart wood of *Santalum album*, L., *Santalaceae*.—**HABIT.:** East India.—**CONSTIT.:** Volat. oil; resin; tannin.—**USES:** As incense, f. fumigating, & as source of the oil (latter used in honor.).

Sandarac—B.P.C.

Resin fr. *Callitris quadrivalvis*, Vent., *Coniferae*.—**HABIT.:** Morocco.—**Brittle**, elongated, light-yellow tears; transluc., w. vitr. fract., crumble to powd. when masticated.—**SOL.:** A., E., amyl A., acetone, & in hot caustic alkalies; partly in C., volat. oils, oil turp., CS₂; insol. benzin, B.—**CONSTIT.:** Volat. oil (abt 1%); pimaric acid (85%); sandaricinic acid (2.3%); callitrolic acid (abt 10%); sandaraco-resene; bitter principle.—**USES:** As incense, & techn. f. tooth cements, lacquers, varnishes, &c.

SAND-BRIER—see Solanum

SANGREL—see Serpentaria

Sanguinaria—N.F. V; B.P.C.

Bloodroot; Red Puccoon; Red-root; Puccoon Root; Tetterwort.—Dried rhizome & roots of *Sanguinaria canadensis*, L., *Papaveraceae*.—**HABIT.:** North America.—**CONSTIT.:** Sanguinarine; chelerythrine; protopine; β & γ-homochelidonine; red resin.—**ACTION:** Stimulant; Expector.; Emmen.; Emetic; Sternut.; Tonic.—**USES:** Coughs, & to produce emesis.—**DOSE:** 0.06–0.3 Gm. (1–5 grn.); aver. dose, 0.12 Gm. (2 grn.); 1.3 Gm. (20 grn.) as emetic.—*Aqu. extr.*, 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{4}$ grn.) expector.; 0.1–0.2 Gm. ($\frac{1}{2}$ –3 grn.) emetic.—*Fl'dextr.*, 0.06–0.3 cc. (1–5 M).—*Tr.* (1:10), 0.6–4 cc. (10–60 M); aver. dose, 1 cc. (15 M).—**ANTID.:** Stomach tube, diffusible stimulants, amyl nitrite, morphine, atropine.

"Sanguinarine"—(Not the Eclectic Sanguinarin)

Mixt. of alkaloids fr. rhizome *Sanguinaria canadensis*, L.—Reddish-gray, cryst. powd.; acrid burn'g taste.—**SOL.:** C., amyl A.; sltly in A., E.; insol. W.—**ACTION:** Stim.; Tonic; Expector.; Purg.; Emetic.—**USES:** Dyspep., debil., chiefly as expector. in colds & coughs, & to cause vomiting.—**DOSE:** *Expector.*, 0.005–0.008 Gm. ($\frac{1}{12}$ – $\frac{1}{8}$ grn.); *emetic*, 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—**CAUT.:** Poison.

Sanguinarine Nitrate Merck

Nitrated mixture of alkaloids fr. *Sanguinaria*.—Orange-red, cryst. powd.—**SOL.:** W., A.—**ACTION, USES, & DOSES:** As stated under "sanguinarine."

Sanguinarine Sulphate

Sulphate of mixed alkaloids fr. *Sanguinaria*.—Orange-red, cryst. powd.—**SOL.:** W., A.—**ACTION, USES, & DOSES:** As of "sanguinarine."

SANGUIS DRACONIS—see Dragon's Blood

SANOCHRY SIN = GOLD & SODIUM THIOSULPHATE

Santalin

Crude Santalic Acid.—C₁₅H₁₄O₅ = 274.19.—Coloring-matter fr. wood *Pterocarpus santalinus*, L. fil. (Red Saunders).—Reddish powd.—**SOL.:** E.; eas. in A. w. red color, in alkalies w. violet color.—**MELT.:** 104° C.—**USES:** Chem. anal. as indicator (alkalies = violet; acids = red).—See also Santalic Acid, Pure.

SANTALOL—see Arheol

SANTALOL SALICYLATE—see Santyl

Santonica—B.P.C.

Levant Wormseed; Semen Cinæ.—Dried, unexpanded flower heads of *Artemisia maritima*, var. *Stechmanniana*, Besser, *Compositae*.—**HABIT.:** Persia; Turkestan; Russia.—**CONSTIT.:** Santonin (2%–5%); volat. oil (2%–3%); artemisinin; resin; gum.—**ACTION:** Anthelmintic; Stim.; Emmen.; also as source of santonin.—**DOSE:** 1–8 Gm. (15–120 grn.) accord. to age.—**Alcoh. extr.**, 0.12–0.3 Gm. (2–5 grn.).

Santonin Merck—U.S.P. X—Cryst. or Powd.

Anhydrous Santoninic Acid.—C₁₅H₁₈O₃ = 246.22.—Inner anhydride of santoninic acid obt. fr. unexpanded flower heads, *Artemisia pauciflora*, Weber (*A. maritima* var. *Stechm.*).—Colorl., lustr., sltly bitter plates or powd., becoming yellow on expos. to light.—**SOL.:** 43 A., 1.7 C., & 110 E., at 25° C., 6.5 boil. A., alm. insol. cold, & v. sltly sol. boil., W., U.S.P.—**MELT.:** 169°–171° C., U.S.P.—**ACTION:** Anthelmintic; Emmen.; Tonic.—**USES:** Worms, amenor., epilepsy, lancinating pains in tabes, diabetes, tropical dysentery (using photosantonin), & as stim. to optic nerve in tobacco amaurosis.—**Doses:** 0.06–0.25 Gm. (1–4 grn.), aver. dose, 0.06 Gm. (1 grn.); *childr.* of 2 yrs., 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.) cautiously administered, as large doses may develop toxic symptoms; in *tabes*, 0.06 Gm. (1 grn.) 3 t.p.d.; *epilepsy*, 0.1 Gm. ($\frac{1}{2}$ grn.) 3 t.p.d.; *diabetes*,

0.02–0.25 Gm. ($\frac{1}{2}$ –4 grn.) 3 t.p.d.; *tropical dysentery* (using photosantonin), adults, 0.3 Gm. (5 grn.) in 8 cc. (120 M) olive oil 3 t.p.d. f. 1 day, followed by a cathartic.—MAX. D.: 0.3 Gm. (5 grn.) p.d.—VETER. MED., as vermifuge, *horses & cattle*, 10–25 Gm. ($2\frac{1}{2}$ –6 $\frac{1}{4}$ dr.); *sheep & goats*, 1–2 Gm. (15–30 grn.); *pigs*, 0.5–1 Gm. (8–15 grn.); *dogs*, 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.); *cats & fowl*, 0.02–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—ANTID.: Enemas of chloral hydrate; cold affusions; artif. respir.; emetics.—CAUT.: Poison! Turns yellow in the light. Keep well stopp'd in the dark.

Santoninnoxim

Chromosantoninnoxim.— $C_{15}H_{18}O_2N.OH + H_2O = 269.25$.—Condensation product of santonin & hydroxylamine.—Wh., cryst. powd., sensit. to light; less toxic (acc. to Coppola) than santonin.—SOL.: A.; sltly W.—MELT.: 216° C.—ACTION & USES: Anthelmintic.—DOSE: *Childr.*, 2–3 years, 0.05 Gm. ($\frac{3}{4}$ grn.); 4–6 years, 0.1 Gm. ($1\frac{1}{2}$ grn.); 6–9 years, 0.12 Gm. (2 grn.); *adults*, 0.3 Gm. (5 grn.), divided into two doses & taken at intervals of 1 or 2 hours, followed by a cath. Repeat f. 2 or 3 days. Give in wafers or suspended in W.

Santyl

Santalol Salicylate Knoll.— $C_6H_4.OH.CO.O-$ ($C_{15}H_{23}$) = 340.33.—Yellowish, alm. odorl. & tastel. oily liq.; 60% santalol.—SOL.: 10 A.; insol. W.—BOIL.: 121°–126.6° C. at 20 mm. w. part. decomp.—SP. GR.: 1.07 at 15° C.—USES: Gonorr., urethritis, cystitis, epididymitis, prostatitis, & post-gonorrheal affections; also ozena.—DOSE: 1–2 cc. (15–30 M) in milk, 3 t.p.d.

do. —Capsules, 7 Drops Each

SANTYLMETHYL ESTER—see Thyresol

SAPO—see Soap

SAPO ANIMALIS—see Soap, Curd

SAPO DURUS—see Soap, Hard

SAPO MOLLIS, or VIRIDIS—see Soap, Soft

Sapogenin

Sapogenol.— $C_{14}H_{22}O_2 = 222.25$.—Decompos'n product of saponin.—Wh. need.—SOL.: Sltly A., E.; insol. W.—MELT.: Abt 257°–260° C.

SAPOGENOL—see Sapogenin

Saponaria

Soapwort; Soaproot; Fuller's-herb; Bruisewort; Bouncing Bet.—Herb & root of *Saponaria officinalis*, L., Caryophyllaceæ.—HABIT.: Europe to middle Asia; natur. in U. S.—CONSTIT.: *Herb*: Saponin; *Root*: Saponin; sapotoxin.—ACTION: *Herb*: Emeto-cathartic; Antiherpetic; Antirheumat.; Antisyphil.; Antiscrofi.; Emmen.—*Root*: Aper.; Diaphor.; Diuret.; Resolv.; Alter.; Expectorant.—USES: Coughs, vener. & cutan. affect., scrofi., gonorr., &c.—TECHN., as detergent.—DOSES: *Herb & Root*: 1–4 Gm. (15–60 grn.).—Alcoh. extr., 0.5–1.3 Gm. (8–20 grn.); *Max. D.*: 4 Gm. (60 grn.) single; 12 Gm. (3 dr.) daily.—Fl'dextr., 2.5–8 cc. (40–120 M).

Saponin Merck—Pure

Glucoside fr. *Saponaria officinalis*, L., & existing in o. plants, partic. in bark of *Quillaja Saponaria*, &c.—Wh., amorph. powd.; pung., disagre. taste; W. foams when shaken w. it. Cont's traces of sapotoxin, but no quillajic acid.—SOL.: Eas. W. & hot A., diffic. cold A., & insol. B., C., E., CS₂, B.P.C.—ACTION: Expecto.; Emetic; Alter.—Acts like, but is less toxic than, sapotoxin.—USES: *Techn.*, emulsifying oils, tars, etc., & as foam-producing agent.—ANTID.: Cholesterin.

do. Merck—Purified

Acrid extractive fr. *Saponaria officinalis*, L., & consist. chiefly of sapotoxin & lactosin besides salts.—Yellowish-gray to brown powd.—SOL.: W. w. foaming.—USES: As foam producer (where allowable) in beverages like lemonade, mineral waters, & wines, & f. emulsifying oils. The foaming of the commercial product is caused by either the sapotoxin alone or the quillajic acid. Also used as detergent in textile industries, as size, substitute f. soap, paste, &c.

do. Merck—Crude

do. —Fr. Guaiac Bark

Guaiac-Saponin.—Non-toxic saponin fr. bark *Guaiacum officinale*, L.—Yellowish powd.—SOL.: A., eas. W.; insol. E.—USES: As foam producer f. beverages (1:100,000) where allowable.

Sapotoxin

$C_{17}H_{26}O_{10} + H_2O = 408.31$.—Glucosidal substce fr. commercial saponin, & also fr. inner bark *Quillaja Saponaria*, Molina.—The sapotoxins fr. *Saponaria* & *Quillaja* are identical.—Wh. powd.; h'ly toxic.—SOL.: W., dil. A.—The aqueous solut. foams strongly. Even 1:10,000 solut. capable of diss. red blood corpuscles. On ingestion into stomach, acts as emetic.—CAUT.: Poison!

Sappan—B.P.

Heartwood of *Cæsalpinia Sappan* L., Leguminosæ.—HABIT.: India.—CONSTIT.: Brasilin.—ACTION: Astr.—DOSE: 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.) of 1:20 decoct.

Sarcine

Hypoxanthine; Sarkine; 6.Ketopurine; Oxypurine.— $C_5H_4N_4O = 136.09$.—Diured fr. meat.—Wh., microcryst. powd.—SOL.: Acids, alkalies, W., less sol. in A.

Sarcine Hydrochloride

$C_5H_4N_4O.HCl = 172.56$.—Wh. cryst.—SOL.: W.

Sarcosin

Methylaminoacetic Acid; Methylglycoll; Methylglycin.— $CH_3NH.CH_2.CO_2H = 89.08$.—Deriv. of creatin.—Deliq., colorl. cryst.; sweetish taste.—SOL.: v. eas. W.; sltly A.—MELT.: Abt 200° C. w. decomp.—USES: Uric-acid diathesis, rheumat., arthritis, Bright's dis., &c.—DOSE: 0.5–1 Gm. (8–15 grn.) 2–4 t.p.d.

SARKINE—see Sarcine

Sarsaparilla—U.S.P. X; B.P.C.

Dried root of *Smilax officinalis*, Kunth (Honduras Sarsap.), *S. medica*, Chamisso & Schlechtendal (Mexican Sarsap.), or *S. ornata*, Hooker fil. (Jamaica or Central American Sarsap.), Liliaceæ.—**HABIT.:** Honduras; Jamaica; Mexico (Vera Cruz); Brazil; Guatemala.—**CONSTIT.:** Sarsaponin; smilacin (parillin; smilasaponin); resin; volat. oil.—**ACTION:** Antisiph.; Diur.; Alter.; Diaph.; Tonic.—**USES:** As "blood purifier" in syph., scrof., rheumat., & skin diseases (us'y w. mercury & potass. iodide).—**DOSES:** 2–8 Gm. (30–120 grn.); aver. dose, 2 Gm. (30 grn.).—**Alcoh. extr.,** 0.3–1 Gm. (5–15 grn.).—**Fl'dextr.,** 2–8 cc. (30–120 M).—**Conc. Comp. Liq.,** 8–30 cc. (2–8 fl. dr.).—**Comp. Fl'dextr.,** 2–8 cc. (30–120 M).—**INCOMPAT.:** Infus. nutgall; lead acetate; lime water.

SARSAPARILLA, INDIAN—see Hemidesmus

SARSAPARILLA SAPONIN—see Smilacin

Sassafras—N.F. V

Saxifrag; Ague-tree; Cinnamon-wood; Saloop.—**Bark of the root** (root with the bark, B.P.C.) of *Sassafras variifolium*, O. Kuntze (*S. officinale*, Nees & Eberm., B.P.C.), Lauraceæ.—**HABIT.:** North America.—**CONSTIT.:** *Root:* Vol. oil (2%, B.P.C.); *Bark of Root:* Volat. oil (6%–9%, B.P.C.); sassafrid; tannin; gum; resin; wax.—**ACTION:** Aromat.; Stim.; Astring.; Diaph.; Diur.; Alter. (in syph.); also extern. in rhus poisoning.—**DOSES:** 2–12 Gm. (30–180 grn.); aver. dose 10 Gm. (2½ dr.).—**Aqu. extr.,** 0.12–0.5 Gm. (2–8 grn.).—**Fl'dextr.,** 2–4 cc. (30–60 M).

Sassafras Pith—N.F. V; B.P.C.

Dried pith of *Sassafras variifolium*, O. Kuntze (*S. officinale*, Nees & Eberm., B.P.C.), Lauraceæ.—**HABIT.:** See Sassafras.—**CONSTIT.:** Much gum; some volat. oil.—**ACTION:** Demulc.—**USES:** As mucil. in dysent., & inflam. of air passages & stomach; also as collyr. in acute conjunct., & as vehicle f. active remedies.

SASSOLIN—see Sassolite

Sassolite—Mineral

Sassolin.—**OCCUR.:** Lipari Isles; natural waters in Tuscany & California.—**COMPOS.:** B(OH)₃.—**CRYST. SYST.:** Asym.—**USES:** Source of boric acid.

Sassy Bark—B.P.C.

Saucy Bark; Mancona Bark; Ordeal Bark; Red-water Tree Bark; Casca Bark; Saxon Bark; Doom Bark; Teli; Bondou.—**Bark of Erythrophloeum guineense**, Don, Leguminosæ.—**HABIT.:** Central & Western Africa.—**CONSTIT.:** Erythrophleine; tannin; gum; resin.—**ACTION:** Cardiac tonic; Astring.; Diaph.; Nar.; Local Anesth.; Succed. f. Digitalis; Sternut.—**Natives** use the bark in ordeals, & as arrow poison.—**USES:** Diar., dysent., & colic.—**DOSES:** 0.3–0.6 cc. (5–10 M) of 1:10 Tr.—**ANTID.:** Emetics, stomach siphon, stimulants.

SAUCY BARK—see Sassy Bark

Saunders, Red—U.S.P. X

Sandalwood, Red; Ruby Wood.—**Heart-wood of Pterocarpus santalinus**, L. fil., Leguminosæ.—**HABIT.:** East Indies.—**CONSTIT.:** Santalin (santalinic acid); santal; pterocarpin; homopterocarpin; resin; tannin.—**ACTION:** Tonic; Astring.—**USES:** Chiefly techn. f. coloring, tinctures, &c., & as a dye.—**DOSE:** 1–4 Gm. (15–60 grn.).

Savin—B.P.C.

Young shoots of *Juniperus Sabina*, L., Conifera.—**HABIT.:** Europe; northern Asia; North America south to New York & Montana.—**CONSTIT.:** Volat. oil (2%–4%); resin; tannin.—**ACTION:** Abortifac.; Emmen.; Diur.; Vermif.—**USES:** *Intern.*, in amenor., rheumat., gout, & worms.—*Extern.*, f. warts, indol. ulcers, & tinea capitis.—**DOSE:** 0.3–0.6 Gm. (5–10 grn.); *Max. D.:* 1 Gm. (15 grn.) single; & 3 Gm. (45 grn.) p.d.—**Alcoh. extr.,** 0.03–0.12 Gm. (½–2 grn.); *Max. D.:* 0.2 Gm. (3 grn.) single, 1 Gm. (15 grn.) daily.—**Fl'dextr.,** 0.3–1 cc. (5–15 M).—**ANTID.:** Mustard, emetics, castor oil.

SAW PALMETTO—see Sabal

Sawdust—Purified

For pharmaceutical purposes.

SAXIFRAGE, SMALL—see Pimpinella

SAXIFRAX—see Sassafras

SAXIN—see Saccharin

SAXOL, or SAXOLINE—see Petrolatum

SAXON BARK—see Sassy Bark

SCABIOUS—see Erigeron

SCABWORT—see Inula

"SCAMMONIN"—see Resin Scammony

SCAMMONY, MEXICAN—see Ipomea

Scammony Root—U.S.P. IX; B.P.

Root of *Convolvulus Scammonia*, L., Convolvulaceæ (yielding not less than 8% resin).—**HABIT.:** Asia Minor; Greece.—**CONSTIT.:** Resin (3%–13%, aver. 8%, B.P.C.); dihydroxycinnamic acid; β-methylesculetin; ipuranol; sucrose; starch.—**ACTION:** Drast. Purgat.; Hydragogue; Cholagogue.—**USES:** Source of Scammony Resin.—**DOSE:** Aver., 0.25 Gm. (4 grn.).

SCAMMONY ROOT, MEXICAN—see Orizaba Jalap Root

SCAPOLITE, COMMON—see Wernerite

SCARLET BERRY—see Dulcamara

SCARLET R BIEBRICH—see Biebrich Scarlet R, Medicinal

Scarlet Red

Ponceau.—Sodium salt of aminoazobenzene-azobetanaphtholdisulphonic acid.—Reddish-brown powd.—**SOL.:** W.; solut. yellowish-red.—**NOTE:** This dye is *not* adapted for medicinal use. For this purpose only Biebrich Scarlet R, Medicinal, should be employed.

Scarlet Red Sulphonate

Sod. salt of azobenzenedisulphonic acid azobeta-naphthol. — $C_6H_4.(SO_3Na)N:N.C_6H_3.(SO_3Na).$ — $N:N.C_{10}H_6OH = 556.37$. — Dark, brownish-red, odorl. powd. — SOL.: W., sltly A., E., acetone; alm. insol. B., C., oils, & petrolatum. — ACTION & USES: Essentially those of Biebrich Scarlet R. Medicinal. — APPL.: 4% emulsion, & in 5% to 10% oint. (in which forms mktd).

SCATOL—see Skatol

SCHAEFER'S PHOSPHORATED MERCURY—see Mercury Phosphate, Mercurous

SCHÄFER'S SALT—see Sodium β -Naphtholsulphonate

SCHÉELE'S GREEN—see Copper Arsenite

Scheelite—Mineral

Scheelspath. — OCCUR.: Australia; Bohemia; Saxony; Tyrol; France; Sweden; Finland; U. S. — COMPOS.: WO_4Ca . — CRYST. SYST.: Tetrag. pyram. hemih. — LUSTER: Vit. to adamantine. — COLOR: Pale-yellow, brown, or gray; somet. wh., green, reddish or orange. — STREAK: Wh. — HARDN.: 4.5–5. — SP. GR.: 5.9–6.1. — USES: Manuf. tungstic acid; selected clear pieces used f. detect. Roentgen rays.

SCHÉELIUM—see Tungsten

SCHÉELSPATH—see Scheelite

SCHIFF'S REAGENT—see Acid Thioacetic

Schiff's Solution—Test for Aldehydes

Aqu. solut. fuchsine 0.25:1000, decolorized by SO_2 . — The solut. develops a violet-red color w. v. small quant. of aldehydes.

Schlagdenhauffen's Solution—Test for Alkaloids

Mixt. eq. parts 3% tinct. guaiac & satur. solut. $HgCl_2$. — Affords a blue color w. alkaloids but not w. glucosides.

SCHLEICH'S SALT—see Salt, Schleich's

SCHLIPPE'S SALT—see Sodium Sulphantimonate

SCHÖNBEIN-PAGENSTECHER'S PAPER—see Guaiac-Copper Sulphate Paper

SCHÖNBEIN'S OZONE PAPER—see Potassium Iodide-Starch Paper

Schultze's Solution—Test for Alkaloids

Solut. 10 Gm. $SbCl_5$ in 40 Gm. sat. solut. Na_2HPO_4 . — Affords ppt's w. sulphates of alkaloids.

do. —Test for Cellulose

Solut. 250 Gm. $ZnCl_2$, & 80 Gm. KI in 85 cc. W., & satur. w. iodine. — Affords a blue color w. cellulose.

SCHWEINFURTH GREEN—see Copper Acetoarsenite

Schweitzer's Solution—Test for Wool, etc.

Diss. 10 Gm. $CuSO_4$ in 100 cc. W., add solut. 4 Gm. NaOH in 50 cc. W., collect ppt., wash w. W., dry somewhat, & diss. in 20 cc. 20% NH_4OH by occas. shaking f. 24 hrs. — Dissolves silk, cotton, & linen, but not wool.

SCILLA—see Squill

Scillipicrin

Active bitter prin. fr. bulb of *Urginea maritima*, Baker. — Yellow to yellowish-red, hygros. pieces. — SOL.: W. — ACTION: Diuretic. — USES: Dropsy, cardiac & renal affect., &c. — DOSE: Subcut., 0.02–0.06 Gm. ($\frac{1}{3}$ –1 grn.) once p.d.

Scillitin

Bitter prin. fr. bulb of *Urginea maritima*, Baker. — Brownish-black mass. — ACTION: Diuretic. — USES: Dropsy due to dis. of heart & kidneys. — DOSE: 0.01–0.03 Gm. ($\frac{1}{60}$ – $\frac{1}{2}$ grn.) per day.

Scillitoxin

Glucoside fr. bulb of *Urginea maritima*, Baker. — Brownish, amorph. powd. — SOL.: A. — ACTION: Diur. — USES: Nephritis & o. dis. of urin. org. — DOSE: 0.001–0.002 Gm. ($\frac{1}{60}$ – $\frac{1}{30}$ grn.) sev'l t.p.d. — MAX. D.: 0.05 Gm. ($\frac{3}{4}$ grn.) p.d.

SCIO TURPENTINE—see Turpentine, Chian

SCLEROCRYSTALLIN—see Ergotinine

Scoparin—B.P.C.

$CH_3O.C_6H_3(OH).C_{13}H_8O_3(OH)_5 = 420.26$. — Bitter, phenolic prin. found, besides sparteine, in tops *Cytisus Scoparius*, Link. — Yellow. odorl., tastel., cryst. powd. — SOL.: Hot & sltly in cold, W., eas. in NH_4OH & caustic alkalies, & sol. in hot & sltly cold A. — ACTION: Diur. (?) — USES: Cardiac or nephritic dropsy. — DOSE: 0.3–0.5 Gm. (5–8 grn.). — Subcut., 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.), diss. in 1 cc. (15 M) W. w. a trace of ammonia, or in a mixt. of glycerin 1 part, W. 3 parts.

Scoparius—N.F. V; B.P.

Broom; Green, Scotch, or Irish Broom; Hogweed; Bannal. — Dried tops (seeds & flowers also used, though not official) of *Cytisus scoparius*, Link, Leguminosae. — HABIT.: Western Asia; Southern & Western Europe; cultiv. in gardens in U. S. — CONSTIT.: Sparteine; scoparin; genisteine; sarothamnine; volat. oil; tannin; fat; wax; sugar; coloring-matter. — ACTION: All parts of plant Diur.; Narc.; large doses Emet. & Cathart.; Cardiac Tonic. — Flowers also used *techn.* as a dye. — DOSE: Tops: 1–4 Gm., (15–60 grn.) in infus. or fl'dextr.; aver. dose, 1 Gm. (15 grn.). — ANTID.: As of digitalis; strychnine, atropine, electricity, tannin, potassium iodide, diuretics, diluents.

Scopola—B.P.C.

Dried rhizome of *Scopola carniolica*, Jacquin, Solanaceae. — HABIT.: Germany (Bavaria); Austria-Hungary (Carniola, Croatia, &c.); Russia. — CONSTIT.: Scopolamine (hyoscyne); atropine; hyoscyamine; (total alkaloids 0.13%–0.42%, B.P.C.; not less than 0.5% mydriatic alkaloids U.S.P. VIII). — ACTION: Mydriatic; Hypn.; Analg.; Antiphlogistic. — USES: Intern., as of belladonna. — Extern., in rheumat. — DOSES: 0.06–0.12 Gm. (1–2 grn.). — Fl'dextr., 0.06–0.12 cc. (1–2 M). — ANTID.: As of belladonna.

Scopolamine Merck—Alkaloid

Hyoscine.— $C_{17}H_{21}NO_4 = 303.26$.—Fr. various Solanaceæ.—Chemically & physiologically identical w. hyoscine.—Alm. colorl., levogyrate, syrupy liq.—SOL.: A., C., E.; sltly W.—ACTION: Hypn.; Sedat.; Mydr.—USES: *Intern.*, mania, chorea, alcohol. tremor, paralysis agitans, morphine & cocaine habit; quiet & give sleep to insane.—*Extern.*, 4–6 drops 1:400 aqu. solut. as powerful mydr. Salts us'y used.—DOSE: For insane, 0.0012 Gm. ($\frac{1}{50}$ grn.), cautiously incr. or repeated until effect is prod. For sane, 0.00015–0.0003 Gm. ($\frac{1}{400}$ – $\frac{1}{200}$ grn.).—*Subcut.*: For insane, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.). For sane, 0.00015–0.0003 Gm. ($\frac{1}{400}$ – $\frac{1}{200}$ grn.).—Has been recom. in comb'n w. morphine to produce narcosis in surgical operations & childbirth.—MAX. D.: 0.0006 Gm. ($\frac{1}{100}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) daily.—ANTID.: Emetics, stom. siphon, pilocarpine nitrate 0.03 Gm. ($\frac{1}{2}$ grn.), or morphine sulphate 0.02 Gm. ($\frac{1}{3}$ grn.) hypod.; chloral hydrate, tannin, animal charcoal, heat or cold extern., cathartics, &c.—CAUT.: Poison!

Scopolamine Hydriodide

Hyoscine Hydriodide.— $C_{17}H_{21}NO_4.HI = 431.19$.—Colorl. cryst.—SOL.: Moderately in W., A.—USES, DOSES, &c.: As of the hydrobromide.

Scopolamine Hydrobromide Merck—U.S.P. X

Hyoscine Hydrobromide.— $C_{17}H_{21}NO_4.HBr + 3H_2O = 438.24$.—Salt of alkaloid fr. various Solanaceæ, chemically, physiologically, & clinically ident. w. hyoscine.—Colorl., odorl., sltly effloresc., levorotatory cryst.—SOL.: 1.5 W., 20 A., at 25° C., sltly C., insol. E., U.S.P.—MELT.: 190°–192° C., when anhydr., U.S.P.—ACTION: Mydr.; Hypnotic; Sedat.—USES: *Extern.*, in ophthalmology inst. of atropine in 0.1%–0.2% solut., 6–7 drops being instilled.—*Intern.*, in paralysis agitans, delirium tremens, morphinism, alcoholism, in insomnia as narcotic, in eclampsia, labor pains, asthma, nymphomania, tetanus, vomiting of pregnancy; also *subcut.* f. quieting the insane.—DOSES: 0.0003–0.0006 Gm. ($\frac{1}{200}$ – $\frac{1}{100}$ grn.); aver. dose 0.0005 Gm. ($\frac{1}{120}$ grn.); *subcut.* in insanity 0.00025–0.001 Gm. ($\frac{1}{240}$ – $\frac{1}{60}$ grn.).—MAX. D.: 0.001 Gm. ($\frac{1}{60}$ grn.) single; 0.003 Gm. ($\frac{1}{20}$ grn.) p.d.—Has been advocated f. producing general anesthesia, in operations, & labor, & f. producing the "twilight sleep," in doses of 0.0006–0.001 Gm. ($\frac{1}{100}$ – $\frac{1}{60}$ grn.) w. morphine hydrochloride 0.01 Gm. ($\frac{1}{5}$ grn.), *subcut.* ev. hr. f. 3 doses, using freshly made solutions. The *contraindications* for scopolamine-morphine anesthesia in labor are: Appreciable disturbances of the circulation & respiration; severe conditions of general debility; primary uterine inertia; secondary uterine inertia when due to gradual diminution in strength of pains; febrile diseases, acute anemia, & somnolent conditions; in prolonged labor due to contracted pelvis. In o. cases use w. great caution in myocardial & renal affections; neurasthenics & hysterical subjects abnormally susceptible.—In VETER. MED., horses & cattle, 0.01–0.05

Gm. ($\frac{1}{5}$ – $\frac{3}{4}$ grn.); dogs, 0.003–0.01 Gm. ($\frac{1}{20}$ – $\frac{1}{5}$ grn.).—ANTID.: Emetics, stomach pump, tannin, animal charcoal, cathartics, &c.

Scopolamine Hydrochloride Merck

Hyoscine Hydrochloride.— $C_{17}H_{21}NO_4.HCl + 2H_2O = 375.76$.—Wh. cryst.—SOL.: W.—USES, DOSES, &c.: As of the hydrobromide.

SCOPOLAMINE, INACTIVE—see Atroscine

Scopolamine Methylbromide

$C_{17}H_{21}NO_4.CH_3Br = 398.21$.—Wh. cryst.—SOL.: Eas. W. & dil. A.; sltly cold absol. A.; insol. E.—MELT.: 216°–217° C. w. decomp.—USES: Inst. of scopolamine as less toxic; not fully investigated clinically however.

Scopolamine Stable

Scopomannit.—An aqu. solut. scopolamine hydrobromide w. 10% mannite added to protect against decomp'n.—ACTION, USES, & DOSES: As of scopolamine hydrobrom. —Mktd in soluts of different strengths in ampuls ea. cont'g 1.2 cc. (18 M); ea. cc. (15 M) = 0.0003 Gm. ($\frac{1}{200}$ grn.), or 0.0005 Gm. ($\frac{1}{120}$ grn.), or 0.001 Gm. ($\frac{1}{60}$ grn.) scopolamine hydrobrom., respectively.

Scopolamine Sulphate Merck

Hyoscine Sulphate.— $(C_{17}H_{21}NO_4)_2.H_2SO_4 = 704.60$.—Colorl., cryst. powd.—SOL.: W.—ACTION, USES, DOSES, &c.: As of the hydrobromide.

Scopoline

Oscine.— $C_8H_{13}NO_2 = 155.15$.—Decomp. prod. of scopolamine.—Wh. cryst.—SOL.: W., A.—MELT.: 110° C.—BOIL.: 241°–243° C.—Devoid of mydriatic properties.

SCOPOMANNIT—see Scopolamine, Stable

Scopomorphine

A steril. solut. ea. 1 cc. (15 M) of which cont. 0.0006 Gm. ($\frac{1}{100}$ grn.) euscolol & 0.015 Gm. ($\frac{1}{4}$ grn.) morphine hydrochloride.—USES: To produce narcosis & seminarosis in operations & in gynecology.—DOSE: *Subcut.*, 2 cc. (30 M) in 3 equal portions inj. 2½–3 hrs, 1½–2 hrs. & ¾ hr. bef. the operation. For seminarosis, half the dose is given.

SCOTCH BROOM—see Scoparius

SCULLCAP—see Scutellaria

Scutellaria—N.F. V; B.P.C.

Scullcap; Skullcap; Helmet Flower.—Dried overground portion of *Scutellaria lateriflora*, L., Labiatæ.—HABIT.: British America, south to Florida & New Mexico.—CONSTIT.: Scutellarin; volat. oil; tannin.—ACTION: Sed.; Antispasm.; Tonic.—USES: Neural., delir. trem., nerv. exhaust., & chorea.—DOSES: 1–2 Gm. (15–30 grn.); aver. dose, 1 Gm. (15 grn.).—Extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 1–2 cc. (15–30 M).

Scutellarin

$C_{21}H_{20}O_{12} + 2\frac{1}{2}H_2O = 509.31$.—Non-toxic principle fr. root *Scutellaria lateriflora*, L.—

Flat, yellow need.—**SOL.**: A., E., & alkalies.—**Decomp.** at 200° C.—**ACTION**: Tonic, Nerve Sed.—**USES**: Chorea & insomnia.—**DOSE**: 0.05–0.25 Gm. ($\frac{3}{4}$ –4 grn.).

SEA-OAK—see Fucus

SEA ONION—see Squill

SEA PARSLEY—see Lovage

SEA SALT—see Sodium Chloride

Sea Sand Merck—C.P.

Sea sand in fine granules washed with acid & then ignited.

MAXIMUM OF IMPURITIES

Substs Sol. in HCl.....	0.120%
Chloride (Cl).....	0.005%
Vol. Substs.....	0.020%

USES: Diluent of substs undergoing extraction, ignition, drying.

SEA-WRACK—see Fucus

SEBACIC, or SEBACINIC, ETHER—see EthylSebacate

Secacornin

"Ergotin"—Standardized solut. of the active principles of ergot; 1 cc. (15 M) = 4 Gm. (60 grn.) ergot.—Dark-brown liq.—**USES**: As of ergot.—**DOSE**: 0.5–1 cc. (8–15 M) by intramusc. inj.

Secretin—B.P.C.

Pancreatin; Duodenin.—Specific hormone found in living membrane of duodenum & upper part of small intestines of vertebrates.—**USES**: Deficient pancreatic secretion; diabetes.—**DOSE**: As Liquor Duodenalis, 4–8 cc. (60–120 M) per os or hypoderm.

SEDATINE—see Antipyrine

Sedobrol

A bromide preparation in form of bouillon cubes ea. cont'g 1.12 Gm. (17 grn.) NaBr.—**ACTION**: Sedat.; Antiepileptic; Mild Hypnotic.—**DOSE**: In sleeplessness 1–2 cubes in v. hot W. $\frac{1}{2}$ –1 hr before bedtime; in mild nervous affections, disturbed or excited states, 1, 2, or 3 cubes p. day.

SEIGNETTE SALT—see Potassium & Sodium Tartrate

Seiler's Indigocarmine-Boraxcarmine

Consists of 3 soluts: (a) 1 Gm. carmine, 3 Gm. borax, 150 cc. W., & 330 cc. A.; (b) 10 cc. HCl & 40 cc. A.; (c) 4 drops satur. aqu. solut. sod. indigosulphonate in 60 cc. W.—**USES**: Staining histological specimens. The sections are first stained w. (a), then washed w. (b), & then placed in (c).

Selenium Merck—Sticks

Se = 79.20; non-metal. element; disc. by Berzelius in 1817.—Lustrous, brittle, vitreous, non-toxic, black sticks w. greenish reflect.—**SOL.**: Conc. H₂SO₄, hot HNO₃, & hot alkali soluts; sltly CS₂; insol. W.—**Sp. Gr.**: 4.28.—**MELT.**: 217°–220° C.—**BOIL.**: 690° C.—**USES**: Photom-

etry; manuf. ruby glass; electrical experiments (selenium cells, measurement of light, photography of sound, etc.).

do. Merck—Cryst.

Small, lustrous, dark-red cryst., insol. CS₂.

do. Merck—Sticks f. Electrotechnical Use

Lustr., granular solid, insol. CS₂.

do. Merck—Precipitated

Red. amorph. powd.—**SOL.**: Sltly CS₂, H₂SO₄, & solut. KCN.—**USES**: *Extern.*, inst. of sulphur in prurigo, pruritus, & eczema, in 1:15 oint.—*Techn.*, as imbedding material f. diatoms in microscopy; also like the sticks.

SELENIUM DIOXIDE—see (Acid) Selenous Anhydride

Seliwanoff's Solution—Test f. Cane Sugar (Fructose)

Diss. 0.05 Gm. resorcin in 100 cc. dil. (1:2) HCl.—On boiling 5 cc. of the solut. w. a few drops urine, fructose will develop a red color & a red ppt sol. in A.

SEMEN AMOMI—see Pimenta

SEMEN CINÆ—see Santonica

Semicarbazide Hydrochloride

Carbaminic-acid-hydrazide, or Hydrazinecarbamamide, or Aminourea, Hydrochloride.—H₂N.CO.NH.NH₂.HCl = 111.54.—Fr. hydrazine sulphate, Na₂CO₃, & KCNO, followed by benzaldehyde & HCl.—Yellowish-wh. prism. cryst.—**SOL.**: Eas. W.; insol. absol. A., E.—**USES**: Test f. ketones & aldehydes (accord. to Thiele), which give w. the substance cryst. comp'ds having characteristic melting-points.

Semioxamazine

Semioxamhydrazide; Oxamic-acid Hydrazide; Ethanamid-acid Hydrazide; Aminooxamide.—H₂N.CO.CO.NH.NH = 103.07.—Fr. hydrazine sulphate, KOH, & oxamethane.—Colorl., thin, lustr. leaflets.—**SOL.**: Eas. hot W., sltly cold W. (1:400); insol. A., E.; eas. sol. in acids & alkalies w. formation of salts.—**MELT.**: 221° C. w. decomp.—**USES**: Test f. aldehydes; f. ketones also, like semicarbazide.

SEMIOXAMHYDRAZIDE—see Semioxamazine

SENECA SNAKEROOT—see Senega

Senecin

Resinoid fr. Senecio vulgaris, L.—Brown powd. **SOL.**: A.—**ACTION**: Emmen.; Emetic; Astring.—**USES**: Amenor., dysmenor., hepatitis, & hemoptysis.—**DOSE**: 0.06–0.2 Gm. (1–3 grn.).

Senecio—N.F. V

Golden Ragwort; Squaw Weed; Life Root.—Dried plant of Senecio aureus, L., Compositæ.—**HABIT.**: Canada & eastern U. S.—**ACTION**: Diur.; Emmen.; Diaph.; Tonic.—**USES**: Dysmenorrh., amenorrh., dropsy, & diseases of genito-urin. tract.—**DOSES**: Aver., 4 Gm. (60 grn.).—**Extr.**, 0.12–0.6 Gm. (2–10 grn.).—**Fl'dextr.**, 0.6–4 cc. (10–60 M).

Senega—U.S.P. X; B.P.

Senega, or Seneca, Snakeroot; Rattlesnake Root.—Dried root of *Polygala Senega*, L., *Polygalaceae*.—**HABIT.**: North America (Canada to S. Carolina, & west to Wisconsin).—**CONSTIT.**: Senegin (polygalin); saponin; polygalic acid; fixed & volat. oils; resin; polygalite; sugar.—**ACTION**: Expector.; Diur.; Diaph.; Alter.; Sed.—**USES**: *Intern.*, in coughs, colds, catarrhal affections, croup, rheumat., dropsy, asthma, &c.—*Extern.*, irritant.—**DOSES**: 0.3–2 Gm. (5–30 grn.); aver. dose, 1 Gm. (15 grn.).—**Alcoh. extr.**, 0.06–0.2 Gm. (1–3 grn.).—**Aqu. extr.**, 0.06–0.2 Gm. (1–3 grn.).—**Conc. Solut.** (1:2), 2–4 cc. (30–60 M).—**Fl'dextr.**, 0.3–1.3 cc. (5–20 M); aver. 1 cc. (15 M).—**Infus.** (1:20) 15–30 cc. (4–8 fl. dr.).

SENEGA SAPONIN—see Senegin

SENEGA SNAKE-ROOT—see Senega

Senegin

Senega Saponin.— $C_{20}H_{32}O_7 = 384.36$.—Saponin-like glucoside fr. root *Polygala Senega*, L.—Yellowish-wh. powd.—**SOL.**: W.—**ACTION**: Expector.; Diur.; Emetic.—**USES**: Catarrh, croup, dropsy.—**DOSE**: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).

Senna—U.S.P. X; B.P.

Dried leaflets of *Cassia Senna*, L. (Alexandria Senna), or of *C. angustifolia*, Vahl (India or Tinnevely Senna), *Leguminosae*.—**HABIT.**: Nubia; Barbary; Abyssinia; Egypt (Alexandria); Southern India (Tinnevely).—**CONSTIT.**: Cathartic acid; chrysophanic acid; sennacrol; sennapicrin; cathartomannite; sennaemodin; anthraglucosennin; glucosennin; sennarhamnetin; sennanigrin.—**ACTION**: Lax.; Purg.—**USES**: Constip., & febrile condit.—**DOSES**: 2–15 Gm. ($\frac{1}{2}$ –4 dr.); aver. dose, 2 Gm. (30 grn.).—**Alcoh. extr.**, 0.6–2.6 Gm. (10–40 grn.).—**Conc. Liq.** (1:1) or **fl'dextr.**, 4–15 cc. (1–4 fl. dr.).—**Aqu. extr.**, 2–5 Gm. (30–75 grn.).—**Infus.** (1:10), 15–60 cc. ($\frac{1}{2}$ –2 fl. oz.).—**Comp. Infus.** (senna 6, manna 12, magn. sulphate 12, fennel 2, W. to make 100), 60–120 cc. (2–4 fl. oz.).

Senna Pods—B.P.C.

Pods of var. spec. of senna (see latter).—**HABIT.**: See Senna.—Pods are flat, elliptical, obtuse, membranous, smooth, grayish-brown; abt 1 in. (25 mm.) long & $\frac{1}{2}$ in. (12 mm.) broad, but scarcely curved.—**CONSTIT.**: As of senna lvs.—**ACTION**: Purgative (milder than the lvs).

Sepia

Cuttle-fish Bone.—Calcareous substce found under the skin of the back of *Sepia officinalis*, L., *Cephalopoda*.—**HABIT.**: Mediterranean Sea; Atlantic & Pacific Oceans.—**CONSTIT.**: Calcium carbonate & phosphate; gluten.—**USES**: Polish-ing agent, & in tooth powders.

Septacrol

Silver-Acridine.— $CH_3(NO_3).NC_{13}H_5(CH_3)_2(NH_2)_2AgNO_3 = 484.14$.—Double comp'd of $AgNO_3$ & dimethyldiaminomethylacridinium nitrate (Brilliant Phosphine 5 G.); 22.3% Ag.

—Reddish-brown, cryst. powd.—**SOL.**: 200 W.; solut. sensit. to light.—**ACTION**: Bactericide; Antisep.—**USES**: *Intern.*, as disin. in sepsis, phlegmons, pneumonia, influenza, gonorrheic complications, artic. rheum.; *extern.*, infected wounds, gonorrh., bubonic plague, chron. blennorrhagia.—**DOSE**: 0.0025–0.02 Gm. ($\frac{1}{24}$ – $\frac{1}{3}$ grn.) sev'l t.p.d. subcut. or intramusc.—**MAX. D.**: 0.2 Gm. (3 grn.) p. day.—**APPL.**: To mucous membranes 1:1000–2000 solut.; on wounds, 1:200 solut., or 10% oint., or pure powd.

SEPTIFOIL—see Tormentilla

Serpentaria—U.S.P. X; B.P.

Snakeroot; Snakeweed; Sangrel; Birthwort.—Dried rhizome & roots of *Artisotelochia Serpentina*, L. (Virginia Snakeroot), & of *A. reticulata*, Nuttall (Texas Snakeroot), *Aristolochiaceae*.—**HABIT.**: U. S.—**CONSTIT.**: Aristolochine; volat. oil (abt. 1%); resin; tannin.—**ACTION**: Diuret.; Diaph.; Tonic; Emmen.; Aphrodis.; Antiper.; Stim.; Expector.—**USES**: Intermit. fever, w. or without quinine; in cutan. affect., anorexia, dipth., amenor., & bronch.—**DOSES**: 0.3–2 Gm. (5–30 grn.); aver. dose, 1 Gm. (15 grn.).—**Alcoh. extr.**, 0.06–0.3 Gm. (1–5 grn.).—**Conc. Liq.** (1:2), 2–8 cc. (30–120 M).—**Fl'dextr.**, 0.3–2 cc. (5–30 M).—**Tr.** (1:5) 2–8 cc. (30–120 M).

Serpentine—Mineral

OCCUR.: U. S.; Canada; Norway; Sweden; England; Tyrol; Saxony; Yekaterinburg, Russia; Siberia; Snarum.—**COMPOS.**: $Si_2O_9(MgFe)_3H_4$.—**CRYST. SYST.**: Rhomb.—**LUSTER**: Waxlike, greasy or earthy, feeble; also somet. silky.—**COLOR**: Light to dark-green, yellow, brownish-red, n'ly wh., & variegated.—**STREAK**: Wh.—**FRACT.**: Conch. when massive.—**Tough**; transl. to opaque.—**HARDN.**: 2.5–4.—**SP. GR.**: 2.5–2.65.—**USES**: In ornaments; also f. manuf. magnesite & $MgSO_4$; constituent of axle greases.

SERUM ALBUMIN—see Albumin

Serum, Antianthrax, Sobernheim

This serum has heretofore been used chiefly in veterinary medicine f. curative purposes, as well as in combination w. anthrax cultures of reduced virulence in prophylactic vaccinations. For the human being, a specially prepared serum is used, an intravenous injection being made w. 15–20 cc. (4–5 fl. dr.) & repeated f. sev'l days if necessary; (accord. to N.N.R. 30–100 cc. should be inj. subcut. or intraven. as early as possible, the dose being repeated sev'l t.p.d. in severe cases).

Serum, Antibotulinus—B.P.C.

Botulinus Antitoxin.—Obt'd fr. blood serum of horses immunized by repeated inoculations w. increasing doses botulinus toxin obt'd fr. cultures of *B. botulinus*.—**USES**: Botulism; must be given early & in suff. large doses.—**DOSE**: 20–50 cc. (5–12 fl. dr.) intraven., repeated daily if neces.; as *prophylactic* 10 cc. ($\frac{2}{3}$ fl. dr.) intramusc.

SERUM, ANTIDIPHThERIC—see Antitoxin, Diphteria

Serum, Antidysenteric—B.P.C.

Serum of horses highly immunized against several strains of dysentery bacilli of Shiga, Kruse, & Flexner.—Straw colored or yellowish-brown liq.—USES: Summer diarrh.—DOSE: In ordinary cases 40–60 cc. (10–16 fl. dr.) *subcut.*; in grave cases 60–100 cc. (16–25 fl. dr.) *intramusc.*; in very severe cases 80–100 cc. (20–25 fl. dr.) *intraven.* w. normal saline solut.; children in proportion.—Accord. to N.N.R. 20–100 cc. (5–25 fl. dr.) are to be inj. *subcut.*

Serum, Antimeningococcic

A serum prepared w. highly virulent cultures of *Diplococcus intracellularis*.—USES: Epidemic cerebrospinal meningitis.—DOSE: *Subcut.*, 20–30 cc. (5–8 fl. dr.), repeated on the 3rd & 4th day; *intralumbarily*, 20 cc. (5 fl. dr.). As a *prophylactic*, 20 cc. (5 fl. dr.) *subcut.*; accord. to N.N.R. the average dose is 30 cc. (1 fl. oz.) intraspinally as early as possible in the disease, & repeated as indicated.

do. —Dry

The serum in powd. form.—USES: Prophylactic, curative; & as diagnostic (in agglutination test) f. differentiating meningococci fr. o. diplococci.—DOSE: 2.5 Gm. (38 grn.) diss. in 25 cc. (abt. 6 fl. dr.) W. *subcut.*, followed, after lumbar puncture, by 10–15 cc. (2½–4 fl. dr.) (or more) intraspinally; in severe cases larger doses.—As prophylactic, 1 Gm. (15 grn.).—The powd. sometimes used as dust-powd. applied to nasopharyngeal space or tonsils.

Serum, Antiplague—B.P.C.

Serum of horses immunized by intraven. inocul. w. increasing doses of living plague bacilli cultures.—Straw-colored or yellowish-brown liq.—USES: Bubonic plague.—DOSE: 50 cc. (12½ fl. dr.) intraven. at once, followed by 2 *subcut.* inj. or at least 50 cc. (12½ fl. dr.) ea. within 24 hrs; later, 10, 20, or 40 cc. (2½, 5, or 10 fl. dr.) p. d. as neces., until temp. normal. As *prophylactic*, 20 cc. (5 fl. dr.), but immunity not lasting.—NOTE: For intraven. inj. the serum should be warmed to blood heat & strained through sterilized muslin if neces., & injected into a superficial vein of hand or arm.

Serum, Antipneumococcic

Fr. horses treated w. pneumococcus cultures made fr. bacteria obtained directly fr. the human being.—1 cc. (15 M) cont'g 20 immunizing units, i.e., 1/20 Ctg., protects a wh. mouse against 10–100 times the lethal dose of the living culture.—USES: Fibrinous pneumonia (employed as early as possible).—DOSE: 30–40 cc. (8–10 fl. dr.) *subcut.* in the lumbar or gluteal region. (See also N. N. R.). The inj., if neces., may be repeated the same or following day. In corneal serpent ulcer 5 cc. (75 M) are to be injected as early as possible in the lumbar region, in addition to 1 cc. (15 M) of killed pneumococcus culture intramuscularly, followed by 10 cc. (150 M) of the serum every o. day until ulcer formation is inhibited. In croupous pneumonia 6 cc. (90 M) by inj.

Serum, Antistaphylococcic

Obt. fr. horses immunized by staphylococci.—USES: Staphylococcus infection.—DOSE: 1 cc. (15 M) *subcut.*

Serum, Antistreptococcic

Fr. blood of horses immunized by treatment w. highly virulent streptococcic cultures.—USES: By inj. in erysip., puerperal fev., medical & surgical septicemia, phlegmons, anginas, variola, diphtheria, scarlatina, influenza, typhoid, bronchopneum., & mixed infections; also rheumatic affections, & in smallpox.—DOSE: First, 20 cc. (5 fl. dr.); after 24 hrs, 10 cc. (150 M), continuing until reduced temperature remains permanent; in rheumatic affect., 5 cc. (75 M) by inj. in acute cases ev. 2–3 days till 30 cc. (1 fl. oz.) given, then rest 1 or more weeks, then begin again.—Accord. to B.P.C., 30 cc. (1 fl. oz.) *subcut.*, repeated daily, into or near primary focus of disease.

SERUM, ANTITETANIC—see Antitoxin, Tetanus

Serum, Antituberculous, Maragliano

Serum of horses vaccinated w. the toxalbumins & proteins of tubercle bacilli.—USES: Apyretic & febrile forms of phthisis.—DOSE: 1 cc. (15 M) inj. w. antiseptic precautions into the *subcut.* connective tissue near the shoulder blade or of the back. The injections are to be repeated every o. day until the symptoms of sweating cease, whereupon the injections are reduced to 1 per week of 1 cc. (15 M) ea.

do. Marmorek

Serum of horses treated w. a special tubercular toxin.—USES: Pulmonary & o. tubercular processes.—DOSE: Accord. to the degree of severity of the case the treatment is begun w. *subcut.* or rectal inj.—DOSE: *Subcut.*, daily, 5 cc. (75 M) f. 7 days, followed by 5–10 cc. (75–150 M) daily or ev. o. day *rectally* f. 3 weeks.

Serum, Antivenomous, Calmette

Antivenene.—Blood serum of asses or horses immunized against snake venom.—Immunizing power 1:10,000, i.e., a quantity equal to 1/10,000 the weight of a live rabbit will suffice to neutralize the action of 0.001 Gm. (1/60 grn.)—the absolute lethal dose—of the dried venom of the Cobra di Capello, when subsequently ingested. The serum may also successfully be used on the human being & on animals in bites fr. *Bungarus coeruleus*, *Bothrops lanceolatus*, black Naja, *Crotalus horridus*, horned viper, Cape mountain adder, *Echis carinata*, *Lachesis*, *Pelias berus*, also stings of *Trachinus draco* & scorpions. In the treatment, a ligature is first placed above the bitten part, then the wound is washed w. a 1:60 chlorinated-lime solution, & the serum then injected (10 cc. [150 M] f. children; 20 cc. [300 M] f. adults). Around about the bitten part a total of 8–10 cc. (120–150 M) of the chlorinated-lime solut. is injected in 3–4 places into the connective tissue in order to decompose the still unabsorbed poison in loco. Profuse perspiration is induced by giving hot tea & coffee. Alcohol is to be avoided. If the danger is exceedingly

grave, the serum must be injected intravenously.

Serum, Mercurialized

Prep'd by adding normal horse serum to a solut. of HgCl_2 till ppt. first formed dissolves, then diluting w. physiol. NaCl -solut. to desired vol.—**USES:** Syphilis, partic. of cerebrospinal type.—**Mktd** in dilutions of var. strengths, No. 1 cont'g in ea. 30 cc. 0.0013 Gm. ($\frac{1}{50}$ grn.) HgCl_2 & No. 2 cont'g in ea. 30 cc. 0.0026 Gm. ($\frac{1}{25}$ grn.) HgCl_2 , while that intended f. intramusc., subcut. or intraven. use cont's 0.022 Gm. ($\frac{1}{2}$ grn.) HgCl_2 in 8 cc.—**DOSES:** *Intraspinaly*, 30 cc. No. 1, increased to 30 cc. No. 2; *intraven.*, 2 cc. grad'ly incr. to 8 cc. of intraven. solution.

Serum Papers (Diagnostic)—Accord. to E. Jacobsthal

These are made fr. filter paper upon which various sera are dried; they thus afford a great saving in material, as well as convenience in technique.—They serve f. diagnostic & scientific purposes, some being agglutinants (f. coli, dysentery, meningitis, typhoid, & *a- & b-paratyphoid*, bacteria), some precipitants in the forensic detect. of human blood, & some hemolytic, f. the Wassermann test.

SEVEN BARKS—see Hydrangea

SHEEP BERRY—see Viburnum Prunifolium

Shellac

Lacca.—Resin-exudate caused by the puncture by Coccus Lacca, Hemiptera, of the bark of var. resiniferous spec. of Schleicheria, Butea, Ficus, &c.—**HABIT:** East Indies.—**CONSTIT.:** Laccaic acid; erythrolaccin; wax; resins; bitter substce.—**USES:** *Techn.*, in lacquers, varnishes, polishes, cements; manuf. buttons, grinding wheels, sealing wax, imitation ivory, inks, phonograph records; stiffening hats; in electrical machines; coating confections; finishing leather; manuf. paper, fireworks, matches, explosives.

SHEPHERD'S PURSE—see Capsella

SHIKIMOL—see Safrol

SICCATE—see Manganese Borate

SIDERIN YELLOW—see Iron Chromate, Ferric, Yellow

Siderite—Mineral

Chalybite.—**OCCUR.:** England; Germany; Alps; Greenland; U. S.—**COMPOS.:** FeCO_3 .—**CRYST. SYST.:** Hexag. rhomboh.—**LUSTER:** Vitre. to pearly & dull.—**COLOR:** Brown or gray, rarely greenish, reddish, yellowish, or black.—**STREAK:** Wh. to yellowish.—**CLEAV.:** Perfect rhomboh.—**Transl.** to opaque.—**HARDN.:** 3.5–4.—**SP. GR.:** 3.83–3.88.—**USES:** *Techn.* in manuf. iron & steel.

Sidonal

Piperazine Quinate.— $\text{NH}:(\text{CH}_2\text{CH}_2)_2:\text{NH} \cdot 2(\text{C}_6\text{H}_7[\text{OH}]_4.\text{COOH}) = 470.38$.—Wh. cryst. powd.—**SOL.:** Eas. W.—**MELT.:** 168° – 171° C.—**ACTION:** Uric-acid solvent.—**USES:** Gout, neurasthenia, &c.—**DOSE:** 1–1.3 Gm. (15–20 grn.) 5–6 t.p.d.

Sidonal "New"

Quinic-acid Anhydride.—Wh. cryst. powd.—**SOL.:** W.—**ACTION:** Uric-acid solvent.—**USES:** Gout, &c.—**DOSE:** 2–3 Gm. (30–45 grn.).

SIERRA SALVIA—see Artemisia Frigida

SIGMAFORM—see Bismuth Tribromphenate

SILBEROL—see Silver Phenolsulphonate

SILEX—see Flint

SILICA—see Acid Silicic

Silica—Natural

Occurs as Quartz, Flint, Sand, Chalcedony, Opal, Agate, Infusorial Earth (Kieselguhr), &c.— SiO_2 .—**Transp.**, colorl. odorl., tastel. cryst. powd.—**SOL.:** HF, & in fused alkalis & alkali carbonates.—**USES:** Manuf. glass, ceramics, refractories, enamels; decolorizing & purifying oils, petroleum products, resins & waxes; manuf. cements, water glass, scouring & grinding compounds, ferro-silicon, molds for castings, etc.

SILICEOUS EARTH—see Earth, Infusorial

SILICIC ANHYDRIDE—see Acid Silicic

SILICIUM—see Silicon

Silicon Merck—Powd.

Silicium.—**Si** = 28.10; non-metal. element; disc. in 1823 by Berzelius.—Gray, amorph., lusterless, diffic. fusible powd.; takes fire if heated in air.—**SOL.:** HF, caustic alkalis.—**SP. GR.:** 2.35.—**MELT.:** 1420° C.—**BOIL.:** 3500° C.

do. Merck—Cryst.

Hard, black, or grayish-black, lustr. leaflets, resembl. graphite; unchangeable on igniting in air.—**SOL.:** Alkalies & in HF + HNO_3 .—**Conductor** of electricity.—**SP. GR.:** 2.49.—**MELT.:** 1420° C.—**BOIL.:** 3500° C.—**USES:** Powerful reducer; its alloys are largely employed technically (e.g., silicon bronze in telephone & telegraph wires); furthermore, as silicon carbide (carborundum), technically valuable as an abrasive & polishing agent.

Silicon Bromide

Silicon Tetrabromide.— $\text{SiBr}_4 = 347.78$.—Colorl., fum. liq.; disagre. odor; bec. yellow in air.—**Decomp.** by W. into HBr & SiO_2 w. great evol. of heat.—**SP. GR.:** 2.82 at 0° C.—**BOIL.:** 153° C.—**SOLIDIF.:** Abt 5° C.

Silicon Chloride Merck

Silicon Tetrachloride.— $\text{SiCl}_4 = 169.94$.—Clear, colorl., mobile, fum. liq.; suffocating odor.—**Decomp.** by W.—**SP. GR.:** 1.52 at 0° C.—**BOIL.:** 58° C.—**USES:** Electrotechn.; in glass & ceramic industries; also f. produc'g smoke screens in warfare.

Silicon-Copper

Copper-Silicide.—Alloys of silicon & copper cont'g variable quant. Si; w. up to 5% Si ductile, & over 10% Si very hard but eas. powdered.—Hard masses w. metallic luster.—**USES:** Manuf. acid-resisting alloy.

SILICON TETRABROMIDE—see Silicon Bromide

SILICON TETRACHLORIDE—see Silicon Chloride

Siliquid

A neutral, stable colloidal solut. cont'g 0.25% silicic anhydride.—USES: In prophylaxis & treatment of pulmon. tuberc., typhoid, arthritis, grippe, bronchopneumon., diabetes, & arteriosclerosis.—DOSE: 5–10 drops in a tablesp. water sev'l t.p.d.; best given by intraven. inj. in doses of 1 cc. (15 M) increased to 2–3 cc. (30–45 M) at intervals of abt ev. 3 days.

SILKWEED—see *Asclepias Syriaca*

Silver Merck

Ag = 107.88.—Wh. or light gray lustr., ductile, v. tenacious metal; reflects light & heat strongly; best conductor of heat & electricity; not oxidized by air, but affected by H_2S (tarnishes).—SOL.: Eas. dil. HNO_3 ; hot conc. H_2SO_4 , & solut. KCN; insol. HCl.—SP. GR.: 10.50.—MELT.: $960^\circ C$.—BOIL: Abt $1955^\circ C$.

do. —By Electrolysis

Fine powd. w. grayish luster.—SOL., SP. GR., & MELT.: As preced'g.

do. —Granulated

Wh. lustrous granules.—SOL., etc.: As above.

do. Merck—Precipitated

Fine gray powd.—SOL. etc.: As above.

do. —Sheets

SOL., etc.: As above.—USES: Jewelry, silver leaf, coins, wire, castings, alloys, soldering silver objects, thermo couples, mirrors, & making chemical, pharmaceutical, & photographic salts, &c.

Silver Acetate Merck

$AgCH_3COO$ = 166.91.—Wh. to grayish-wh., lustrous needles or cryst. powd.—SOL.: Abt 100 cold, 40 boil. W.—ACTION: Antisept.; Germicide.—USES: *Extern.*, 1% solut. to prevent purulent ophthalmia in new-born infants.—CAUT.: Keep fr. light & fr. organic matter.

SILVER-ACRIDINE—see Septacrol

Silver Arspenamine

Brownish-black powd., unstable in air; cont's approx. 20% As & approx. 15% Ag, N.N.R.—SOL.: Readily in W. w. alkaline reaction.—USES: As of arspenamine.—DOSE: 0.1–0.3 Gm. ($1\frac{1}{2}$ –5 grn.) by inj., beginning w. the smaller dose & grad'ly increas'g at intervals of not less than 4 days to 0.3 Gm. (5 grn.) f. men, & 0.2 Gm. (3 grn.) f. women.

Silver Arsenite

Ag_3AsO_3 = 446.60.—Yellow powd.; sensit. to light.—SOL.: HNO_3 , NH_4OH , acetic acid; insol. W., A.—ACTION: Alter.; Antisept.—USES: Skin dis.; also infectious dis. & metabolic disorders.—DOSE: 0.0006–0.001 Gm. ($\frac{1}{100}$ – $\frac{1}{60}$ grn.).—CAUT.: Poison!

Silver Benzoate

$AgC_7H_5O_2$ = 228.96.—Wh. powd.; sensit. to light.—SOL.: Hot W.; v. sltly A.

Silver Bromate

$AgBrO_3$ = 235.80.—Wh. powd.—SOL.: Alm. insol. cold, more eas. hot, W.; eas. in NH_4OH .—CAUT.: Keep in amber bots.

Silver Bromide Merck

$AgBr$ = 187.80.—Yellowish, odorl. powd.; 57.44% Ag; darkens on expos. to light.—SOL.: Conc. NH_4OH , & in soluts of KCN, KBr, & $Na_2S_2O_3$; insol. W., A., or acids.—SP. GR.: 6.47.—MELT.: $420^\circ C$.—USES: Photo.—CAUT.: Keep fr. light.

Silver Carbonate Merck

Ag_2CO_3 = 275.77.—Yellow to yellowish-gray, cryst. powd.; abt 78% Ag.—SOL.: HNO_3 , NH_4OH , KCN, & $Na_2S_2O_3$; insol. W., A.—Decomp. abt $200^\circ C$.—CAUT.: Keep in dark.

SILVER-CASEIN—see Argonin

Silver Chloride Merck

$AgCl$ = 143.34.—Wh. powd.; 75.2% Ag; blackens on expos. to light.—SOL.: NH_4OH , soluts KCN & $Na_2S_2O_3$; insol. W. or acids.—ACTION: Antisept.; Nerve Sed.—USES: Choreia, gastralgia, epilepsy, pertussis, diar., neuralg., & var. neuroses.—*Techn.*, silverplating by wet & cold process, in analysis, photometry, photography, coloring mother-of-pearl buttons, polishing powd. f. German silver, &c.; also as test f. free acids (Smith).—DOSE: 0.02–0.05–0.1 Gm. ($\frac{1}{2}$ – $\frac{3}{4}$ – $1\frac{1}{2}$ grn.) in pills 3–4 t.p.d.—CAUT.: Keep in dark bot.

SILVER CHLORIDE, COLLOIDAL—see Lunosol

Silver Chromate

Ag_2CrO_4 = 331.76.—Dark brownish-red, cryst. powd.—SOL.: NH_4OH ; KCN, HNO_3 ; insol. W.

Silver Citrate Merck

$Ag_3C_6H_5O_7$ = 512.71.—Wh. odorl., heavy powd.; abt 63% Ag; darkens in light.—SOL.: HNO_3 , NH_4OH , KCN, $Na_2S_2O_3$; v. sltly W.—ACTION: Antisept.; Disinf.—USES: *Intern.*, as intest. antisept.; *extern.*, surg. antisept. in powd. form; as disinf. in 0.2–0.25:1000 solut.; in acute gonorr., 0.25:2000, as inj. 4 t.p.d.; as gargle, lotion, & wash, in 0.1–0.2:1000 aq. solut.—DOSE: as intest. antisept., 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) sev'l t.p.d., & up to 1 Gm. (15 grn.) p.d.—In VETER. MED. in panaritria, colpitis, diphtheria, external otitis in dogs, purulent conjunctivitis, ulcerations, & burns, in 1:8000–500 solut.—CAUT.: Keep in dark. Prepare soluts fresh.

SILVER, COLLOIDAL—see Collargol

Silver Cyanide Merck

$AgCN$ = 133.89.—Wh. or grayish odorl., tastel. powd.; abt 80.6% Ag; stable in dry air; darkens on expos. to light.—SOL.: NH_4OH , soluts KCN & $Na_2S_2O_3$, boil. HNO_3 ; insol. W., A., cold HNO_3 .—ACTION: Antipyr.; Sed.—USES: *In-*

tern., rarely in uterine hemorrhage, epilepsy, gastric carcinoma, syph., & chorea.—*Techn.*, making HCN.—**DOSE:** 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.) 2–3 t.p.d.—**MAX. D.**, 0.015 Gm. ($\frac{1}{4}$ grn.) single, & 0.06 Gm. (1 grn.) p.d. (Hager).—**ANTID.**: Ammonia, chlorine, mixt. of ferric & ferrous sulphates, artif. respir., stomach siphon.—**CAUT.**: Keep in the dark, & handle w. great care. Poison!

Silver Dichromate

$\text{Ag}_2\text{Cr}_2\text{O}_7 = 431.76$.—Dark-brown or dark-red, nearly black cryst. powd.—**SOL.**: HNO_3 ; sltly W.

Silver Fluoride

$\text{AgF} \cdot \text{H}_2\text{O} = 144.90$.—Yellow, to brown v. deliq. cryst. conglomerations; darken in light.—**SOL.**: v. eas. W.—**ACTION:** Strong Antisept.—**USES:** *Intern.*, chron. gastric catarrh, jaundice, chron. constipation w. intest. catarrh; also as gastric lavage in 0.02%–0.03% solut.—*Extern.*, In surgery, 1:1000–100 solut.; in purulent inflam. of eye, 1:3000–4000 solut.; in otorrhea, 1:3000 solut.; in urethritis, 1:5000–1000 solut.; in syph., compresses moistened w. a 1:100 solut.; in smallpox as 1:10,000 solut. as spray or pack, & also in erysip. —**DOSE:** 0.0006 Gm. ($\frac{1}{100}$ grn.) $\frac{1}{2}$ hr bef. meals.—**CAUT.**: Keep in the dark.

SILVER ICHTHYOL—see Ichthargan

Silver Iodate

$\text{AgIO}_3 = 282.80$.—Wh. powd.—**SOL.**: NH_4OH , solut. KI; decomp. by H_2SO_4 ; insol. W.—**ACTION:** Astring.—**USES:** Acute & chronic diar., chron. enteritis, & intest. hemorrhage.—**DOSE:** 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.).

Silver Iodide Merck

$\text{AgI} = 234.80$.—Light yellow powd.; abt 45.9% Ag; eas. affect. by light.—**SOL.**: Solut. KI, KCN, or $\text{Na}_2\text{S}_2\text{O}_3$; insol. W., acids.—**ACTION:** Antineuralg.; Alternative.—**USES:** Gastralgia, chorea, & syph.—*Extern.*, in gonorrh. & urinary dis. by inj. of 5% suspension in quince-seed mucil.—*Techn.*, manuf. photographic plates & papers.—**DOSE:** 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); in epilepsy & o. chron. nervous diseases, 0.06–0.12 Gm. (1–2 grn.), U.S. Disp.—**CAUT.**: Keep in the dark.

Silver Lactate Merck

$\text{AgC}_3\text{H}_5\text{O}_3 + \text{H}_2\text{O} = 214.95$.—Wh. or sltly gray cryst. powd.; abt 50% Ag; affected by light.—**SOL.**: Abt 15 W.—**ACTION:** Powerful Antisept.; Astring.—**USES:** Sore throat, gonorr.; *intraparenchymatously* in acute & chron. infect. dis.; also *subcut.* in anthrax (0.05:20 aqu. solut.) & in erysip. (0.3–1:100–200 aqu. solut.).—**DOSE:** 0.01 Gm. ($\frac{1}{2}$ grn.).—**MAX. D.**: 0.03 Gm. ($\frac{1}{2}$ grn.) single, 0.1 Gm. ($\frac{1}{2}$ grn.) p.d.—**APPL.**, as surg. antisept. solut. 1–2:4000; as wash f. cavities & gargle 1 teaspoonful of 1:50 solut. to a glass W.; also in 1:100–2000 solut. f. making silver threads & drains; in 1:500 solut. in dentistry as wash f. root abscesses; in 1:1000 solut. in veter. medicine.—**CAUT.**: Keep in the dark.

SILVER LEAF—see Stillingia

SILVER METHYLENENUCLEINATE—see Sophol

Silver Nitrate Merck—Reagent

$\text{AgNO}_3 = 169.89$.—Colorl. cryst.—**SOL.**: In less than 1 W., A.

MAXIMUM OF IMPURITIES

Insol. Substcs.....	0.000%
Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.002%
Free Acid.....	None
Copper.....	0.000%
Bismuth (Bi).....	0.000%
Lead (Pb).....	0.000%
Substcs not Pptd by HCl.....	0.015%

USES: Detect'g & determ'g Cl, Br, I, CN, phosphates, arsenates, SCN; detect'g reduc'g sugars, formic acid, adenin, Hg-vapors, aldehydes, iodoform, vol. oil mustard; also reagent f. artif. camphor (Baselli), cottonseed oil (Bechi; Bechi-Hehner), acetylene hydrocarbons (Behal), CO (Berthelot; Dejust; Habermann; Mermet), chloromorphid (Boehringer), cinnabar (Bolley), H_2O_2 (Böttger; Sobbe), oils (Brüllé), phenylpropionic acid (Bulling), tartaric acid (Casselmann); HCN (Deniges), As (Gatehouse; Gutzeit; Hager; Hume; Rieckher), theobromine (Gérard), morphine (Horsley), guaiacol (Jaworowski), tuberculosis (Jefimow), methyl A. (Langbeck), proteids (Lidow), uric acid (Ludwig; Roethlisberger; Schiff), inosite (Perrin), pyramidon (Pévenasse), indican (Prima-vera), glycerin (Ritsert), formaldehyde (Rothenfusser; Thomson), dulcin (Ruggeri), oils contg S (Schneider), glucose (Tollens).

Silver Nitrate Merck—U.S.P. X; C.P.—Cryst.

$\text{AgNO}_3 = 169.89$.—Colorl., odorl. cryst.; bitter, caustic, metal. taste; abt 63.5% Ag; rapidly reduced by organic matter in light & becomes black.—**SOL.**: 0.4 W., 30 A. at 25° C., abt 0.1 boil. W., 6.5 boil. A., & sltly E., U.S.P.—**MELT.**: Abt 200° C.

MAXIMUM OF IMPURITIES

Insol. Substcs.....	0.002%
Free Acid.....	None
Chloride (Cl).....	0.002%
Copper (Cu).....	0.002%
Substcs not Pptd by HCl.....	0.030%

USES: *chem.*, as of the Reagent, preceding.—*medic.*, as an Antisept.; Alter.; Stim.; Eschar.; Irrit.—*Intern.*, epilepsy, locomotor ataxia, amebic dysentery, chorea, angina pectoris, intest. affections, typhoid, chronic diar., subacute gastritis, catarrh of gall duct, hyperacidity, nausea, vomiting, acute & chron. gastric ulcer, pyloric stenosis, & mucous gastritis.—*Extern.*, as inj. in gonorr.; caustic f. warts, badly healing wounds, burns, lupus, ulcers, chancres; also in whoop-cough, erysip., conjunctivitis, otitis, laryngitis, pharyngitis, dysentery, frostbites, external hemorrhoids; in odontalgia following exposure of neck of tooth, in subctce or solut.; in ophthalmic practice in 0.2%–0.5%–1.5% solut.; as enema in 0.1%–0.5%–1% solut.—*Techn.*, extensively in photo.; in sympathetic & indelible inks; dyeing hair; manuf. mother-of-

pearl, & mirrors; silver-plating metals, alloys & glass; manuf. yellow & red glass; coloring porcelain; etching ivory; manuf. silver salts.—**DOSE:** 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose, 0.01 Gm. ($\frac{1}{8}$ grn.).—**MAX. D.** Stated by various authorities as 0.01 Gm., 0.02 Gm., 0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.) single, & 0.04 Gm., 0.1 Gm., 0.16 Gm., 0.187 Gm., 0.2 Gm. ($\frac{3}{8}$ – $1\frac{1}{2}$, $2\frac{1}{2}$ –3 grn.), p. day. When given long internally, skin bec. blue-black.—**APPLIC.** 2% solut. in gonorrh.; 0.2%–0.5% solut. as caustic; 2% solut. in extern. hemorrhoids; as 1%–5% oint. w. lanum & petrolatum.—**IN VETER. MED., horses & cattle,** 0.5–2 Gm. (8–30 grn.); *sheep, pigs, & goats,* 0.1–0.5 Gm. ($1\frac{1}{2}$ –8 grn.); *dogs,* 0.01–0.05 Gm. ($\frac{1}{8}$ – $\frac{3}{4}$ grn.); *cats,* 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.); *fowl,* 0.01–0.02 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.).—**ANTID.** *Extern.,* wash w. water then NaCl solut.; *intern.,* table salt in water copiously, followed by an emetic (tablespoonful mustard in tumbler warm water), followed by magnes. sulphate, then milk, raw egg, or boiled starch.—**INCOMP.,** acetates, A., alkalies, Sb salts, arsenites, bromides, carbonates, chloride, chromates; creosote, cyanides, Cu salts, extracts, FeSO₄, hypophosphites, iodides, morphine salts; oils, manganous salts, organic substances, phosphates, sulphides, sulphates, tannic acid, tartrates, veget. decoctions.—**CAUT.**: Keep in the dark. Poison!

do. Merck—Fused, Sticks or Cones—U.S.P. X

Lunar Caustic; Molded Silver Nitrate.—AgNO₃ molded by fusion into sticks or cones, & toughened by presence of 2%–5% AgCl—Wh., hard, odorl. solid; fibrous fracture; bitter, metal. caustic taste. Darkens on expos.—**SOL.**: w. except of AgCl, as of silver nitrate cryst.—**USES:** *Extern.,* gonorr., conjunctivitis, cystitis, chronic diar., stricture of urethra, excrescences, warts, fungous growths, chancre, dipth., epididymitis, felon, hydrocele, small-pox pitting, laryngitis, tabes dorsalis, &c.; applied directly or in solut.; as eye wash in 1%–5% solut. in W.; in enemas as 1%–5% solut.

do. Merck—Diluted, No. 2, 67%—Sticks

do. Merck—Diluted, No. 3, 50%

do. Merck—Diluted, No. 4, 33 $\frac{1}{3}$ %—U.S.P. VIII—Points

do. Indurated—B.P.

AgNO₃ fused w. 5% KNO₃.

SILVER NITRATE AMMONIO-ALBUMOSE—see Heggon

SILVER NITRATE-METHYLENE BLUE—see Methargyl

SILVER NITRATE, MOLDED—see Silver Nitrate, Fused

Silver Nitrate Paper

Wh. filtering paper impregn. w. a solut. AgNO₃ & dried.—**USES:** For detect. CrO₃, As₂O₃, & P. Most sensitive test f. As, especially adapted f. toxicological investigations, & also f. detecting uric acid in urine (brown color); P = black color; chromates = red color; As = yellow color.

Silver Nitrite Merck

AgNO₂ = 153.89.—Small, yellow to grayish-yellow needles; abt 70% Ag; bec. gray in light.—**SOL.**: Abt 300 W., more eas. in boil. W.; decomp. by acids.—**USES:** *Techn.,* manuf. aliphatic nitro comp'ds, & in synthesis of intermediates; standardizing KMnO₄ soluts; prep'g standard NaNO₂ solut. f. H₂O anal.; test f. primary, secondary & tertiary alcohols (Meyer-Locher); estimat'g nitrites.

Silver Nucleinate Merck—U.S.P. X

Silver Protein, Mild.—Dark brown or often black, shining scales or granules; odorl.; often hygroscop.; 19%–25% metal Ag.—**SOL.**: Freely in W.; alm. insol. A., C., E.—**ACTION:** Antisep.; Astring.—**USES:** Inflammatory affections of conjunctiva, & in corneal ulcers in 10%–20% aqu. soluts.—**CAUT.**: Keep in amber bts.

Silver Oxalate

Ag₂C₂O₄ = 303.77.—Wh., cryst. powd.; detonates violently w. heat.—**SOL.**: Eas. NH₄OH; diffic. in HNO₃; insol. W.

Silver Oxide Merck—U.S.P. IX

Ag₂O = 231.76.—Heavy, brownish-black, odorl., powd.; disagr. metal. taste; abt 93% Ag.—**SOL.**: Eas. in HNO₃; v. sltly W.; insol. A.—**ACTION:** Alter.; Antisep.; Irritant.—**USES:** *Intern.,* syph., epilepsy, nausea, chorea, pyrosis, cardialgia, dysent., night sweats, leucor., uter. inflam., venereal sores, gonorr., &c.—*Extern.,* in oint. in syph. & gonorrh.—*Techn.,* f. imparting luster to glass.—**DOSE:** 0.01–0.06 Gm. ($\frac{1}{8}$ –1 grn.), best in caps, w. some chalk; aver. dose, 0.06 Gm. (1 grn.).—**INCOMP.**: Ammonia W., creosote, tannin, organic matter, phosphorus; salts of Bi, Fe, Cu, & Hg; acids.—**CAUT.**: May cause explosion if triturated w. oxidizable matter.

SILVER OXIDE, COLLOIDAL—see Cargentos

SILVER OXYQUINOLINESULPHONATE—see ArgentoI

Silver Permanganate

AgMnO₄ = 226.81.—Violet cryst. powd.; abt 47.5% Ag.—**SOL.**: Abt 90 W.; decomp. by A.—**USES:** *Extern.,* as inject. in acute gonorrh. (as superior to potass. permangan.) in 0.05–0.1:100 aq. solut.—*Techn.,* as absorbent in gas masks.—**CAUT.**: Keep in dark-colored bot.

Silver Phenolsulphonate

Silberol; Silver Sulphophenylate; Silver Sulphocarbonate.—C₆H₄.OHSO₃Ag = 281.01.—Wh., to faintly reddish cryst. powd.; affected by light.—**SOL.**: Eas. A., v. eas. W.—**ACTION:** Surg. Antisep. & Astring.—**USES:** In ophthalmic practice in 2:1000 aqu. solut.; also inst. of silver nitrate (only half the strength of latter).

Silver Phosphate Merck

Ag₃PO₄ = 418.68.—Yellow powd.; abt 77% Ag.—**SOL.**: HNO₃, H₃PO₄, KCN, NH₄OH; insol. W.—**USES:** In photogr. inst. of AgNO₃ f. collodion emulsions.—**CAUT.**: Keep dark.

SILVER POLYGLYCIN NITRATE—see Argoplex

SILVER PROTEIN, MILD—see Silver Nucleinate

Silver-Protein Merck — Strong — U.S.P. X—Powd.

Silver Proteinate.—Brown, odorl. powd.; usually somewh. hygroscopic.; 7.5%–8.5% metal Ag.—SOL.: Freely in W.; alm. insol. A., C., E.—ACTION: As of other organic silver comp'ds.—USES: 5%–20%–30% solut. in conjunctivitis & o. inflammatory conditions, & in ophthalmia of the newly born; 0.25%–2% solut. in acute, & 2%–10% solut. in chronic, gonorrh., 0.5%–1% solut. for inj. into bladder.—NOTE: All soluts should be freshly made w. cold water. Keep in the dark.

SILVER PROTEINATE—see Silver-Protein, Strong

Silver Salicylate

$\text{AgC}_6\text{H}_4\text{OH.CO.O} = 244.96$.—Wh. to reddish wh. cryst.—SOL.: W. & A.—CAUT.: Keep dark.

SILVER SALVARSAN = Silver Arsphenamine

SILVER-SODIUM CHOLATE, COLLOIDAL—see Choleval

Silver Sulphate Merck—Reagent—Free fr. Nitrates

$\text{Ag}_2\text{SO}_4 = 311.82$.—Colorl. cryst., or cryst. powd.—SOL.: HNO_3 , H_2SO_4 , NH_4OH ; sltly cold, more eas. hot, W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	None
Nitrate (N_2O_5).....	0.001%
Copper (Cu).....	0.002%
Substcs not Pptd by HCl	0.075%

USES: Chem. anal. & synthesis.

Silver Sulphate Merck—C.P.

$\text{Ag}_2\text{SO}_4 = 311.82$.—Small colorl. cryst. or cryst. powd.; abt 6% Ag; becomes gray in light.—SOL.: HNO_3 , eas. NH_4OH ; slowly in 150 cold, 65 boil., W.; eas. in H_2SO_4 , but pptd on add. W.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5).....	0.070%
Copper (Cu).....	0.002%
Substcs not Pptd by HCl	0.10%

USES: As of the Reagent, above.

Silver Sulphide

$\text{Ag}_2\text{S} = 247.82$.—Grayish-black, heavy powd.—SOL.: Diffic. hot conc. HNO_3 & solut. KCN; insol. W.—USES: Techn., in manuf. niello; rendering glass opaque to blue & violet rays f. photographic purposes.

SILVER SULPHOCARBOLATE—see Silver Phenol-sulphonate

"SILVER SULPHOICHTHYLATE"—see Ichthargan

SILVER SULPHOPHENYLATE—see Silver Phenol-sulphonate

SILVER VITELLIN—see Argos; Argyrol

Silver & Potassium Cyanide

$\text{KAg}(\text{CN})_2 = 199.00$.—Wh. cryst.; slt odor of HCN; sensit. to light.—SOL.: W., but pptd by

strong acids.—ACTION: Bactericide; Antisep.; 1:50,000 checks growth of anthrax bacilli in blood serum.—USES: *Extern.*, as urethral & vesical wash (8–10 drops of a 1:5 solut. to 200 cc. [$6\frac{1}{2}$ fl. oz.] W.), the wash (& solut.) to be used *only* by the physician.—*Techn.*, in silvering-soluts.—INCOMP., acids.—CAUT.: Poison!

Silver & Sodium Chloride

$\text{AgCl.NaCl} = 201.80$.—Wh., hard cryst.—Decomp'd by W. into AgCl & NaCl.—SOL.: Conc. solut. NaCl.

Silver & Sodium Thiosulphate

$\text{Ag}_2\text{S}_2\text{O}_3.2\text{Na}_2\text{S}_2\text{O}_3 + 2\text{H}_2\text{O} = 680.15$.—Wh. to gray, cryst. powd.; sweet taste.—SOL.: W.—USES: Techn.

Silver & Thallium Nitrate

Double salt, $\text{AgNO}_3.\text{TlNO}_3 = 435.90$.—Wh., cryst. powd.; affected by light; abt 50% TlNO_3 .—SOL.: Eas. W.—MELT.: 75°C .—USES: In mineralogy f. separating minerals by specific gravity (Penfield).

Silvol

A silver-protein comp'd; abt 20% colloidal Ag.—ACTION: Antisep.; Germicide.—USES: As of o. organic Ag salts in 2%–30% solut. in local treatment of inflammations of mucous membranes (eye, ear, nose, throat, urethra, vagina, bladder, & rectum).

Simaruba—B.P.C.

Mountain Damson; Bitter Damson; Paradise Tree; Paraiaba.—Dried root-bark of *Simaruba amara*, Aubl. & of *S. glauca*, D. C., *Simarubaceae*.—HABIT.: Guiana; Martinique; Jamaica.—CONSTIT.: Bitter principle; fixed oil; resinous matter.—ACTION: Tonic; Astringent.—USES: Anorexia, chron. dysentery.—DOSE: 1–2 Gm. (15–30 grn.).

Simulo

Fruit (seeds) of *Capparis coriacea*, Burch., *Capparidaceae*.—HABIT.: Peru.—ACTION: Antihyst.; Antiepilep. (like bromides).—USES: Hyst., nervousness, & epilepsy.—DOSE: Tinct., 4–8 cc. (60–120 M) sev'l t.p.d.; in subacute salpingo-oophoritis, 2–4 cc. (30–60 M).

SINIGRIN—see Potassium Myronate

SINKALINE—see Choline

Siomine

Hexamethylenamine Tetraiodide.— $(\text{CH}_2)_6\text{N}_4\text{I}_4 = 647.84$.—Red powd.; slt odor & taste; 78.5% I.—SOL.: Sltly in acetone, A., C., E. (w. part decomp.), CS_2 ; alm. insol. W.; sol. w. decomp. in aqu. solut. alkali iodides, $\text{Na}_2\text{S}_2\text{O}_3$, & dil. HCl.—Decomp. w. violence at 138°C .—USES & DOSE: As of potassium iodide.

SIPIRI BARK—see Bebeeru Bark

Sistomensin

The hormone isolated fr. the corpus luteum.—USES: Menorrhagia (without organic etiology), functional dysmenorrhea, & hemorrhages of puberty & menopause; holds menstruation

within normal physiological limits.—DOSE: 1–2 tabl. (ea. cont'g 0.012 Gm. [$\frac{1}{8}$ grn.], as mkt'd).

Skatol

Betamethylindole; Scatol.— $C_6H_4.C(CH_3):CH.NH = 131.13$.—Constit. of human feces; prepared by fus'g egg-albumin w. KOH.—Wh. to brownish, thin scales; fecal odor.—SOL.: Hot W., A., B., C., E.—MELT.: 93° – 95° C.—USES: Test f. lignin (Czapek), glyoxylic acid (Eppinger; Schloss), & HNO_2 (Bujwid).

Skiabaryt—For Oral Administration

Prepared X-Ray Meal Merck.—Made fr. barium sulphate (75%–85%) "f. x-ray diagnosis" w. sugar, tragacanth, cacao, & flavoring substances.—Fine, brown powd. of pleasant taste, & affording a rapid & convenient means of prepar'g a permanent suspension f. radiographic work.—USES: Examin'g the esophagus, stomach, & intestines by observing the course of the "meal" radiographically or on the screen. Is easily taken; affords dense, compact, continuous, & plastic skiagrams; causes no impairment of secretory & kinetic gastrointestinal properties; causes no annoying retention of excreta, but on the contrary, the skiabaryt is smoothly & painlessly voided.—The "meal" is easily prepared by simply stir'g 150–200 Gm. (5– $6\frac{1}{2}$ oz.) or 4–6 heaping tablespoonfuls, of skiabaryt w. enough cold water to make a thin, smooth cream free fr. lumps, & then add'g enough water, hot or cold, to make 0.5 liter (abt 1 pint) suspension of the temperature desired. The mixture may be swallowed in one or two portions.

do. —For Rectal Use

Grayish-wh., heavy, alm. odorl. powd. For use, 200 Gm. (abt $6\frac{1}{2}$ oz.), or 5–6 heaping tablespoonfuls, are first stirred w. cold, then with hot, water, until a fairly fluid suspension results; this is then ready f. injection by means of an irrigator.

SKULLCAP—see Scutellaria

SLIPPERY ELM—see Elm

SLOE-LEAVED VIBURNUM—see Viburnum Prunifolium

SMALTINE—see Smaltite

Smaltite—Mineral

Smaltine.—OCCUR.: Saxony; Bohemia; Cornwall; Sweden; U. S.—COMPOS.: $(CoNiFe)As_2$.—CRYST. SYST.: Reg. pentag. hemih.—LUSTER: Metallic.—COLOR: Tin-wh. to steel gray.—STREAK: Grayish-black.—CLEAV.: None, to fair octah.—HARDN.: 5.5–6.—SP. GR.: 6.4–6.6.—USES: As "smalt" in glass & enamel industry & ceramics as blue coloring; also source of Co.

Smilacin

Smilasaponin; Salseparin; Parillinic Acid; Sarsaparilla Saponin.— $(C_{20}H_{32}O_{10})_5 = 2161.78$.—Amorph. saponin (glucoside) fr. root Smilax officinalis, Kunth, & o. sp.—Yellowish-wh. powd.—SOL.: A., eas. W.; insol. E.—ACTION: Alter.; Expector.; Emetic.—USES: Syph., colds, &c.—DOSE: 0.06–0.2 Gm. (1–3 grn.).

SMILASAPONIN—see Smilacin

SMITH'S BROMINE SOLUTION—see Solution Bromine

SMOOTH ALDER—see Alnus Serrulata

SNAKE MILK—see Euphorbia Corollata

SNAKE ROOT, BLACK—see Cimicifuga

SNAKEROOT—see Serpentaria

SNAKEROOT, CANADA—see Asarum

SNAKEWEED—see Bistort; Euphorbia; Serpentaria

SNAKEWORT—see Bistort

SNAPPING HAZEL—see Hamamelis

SNEEZEWEED—see Hellebore, White

"SNOW" WHITE—see Barium Sulphate

SNOWBALL BUSH—see Viburnum Opulus

SNOWDROP-TREE—see Chionanthus

SNUFF BEAN—see Tonco

SOAMIN—see Sodium Arsinitate

Soap—U.S.P. X; B.P.

Olive Oil Castile Soap; Sapo Durus, B.P.; Sapo, U.S.P.—Wh. or whitish bars, or fine, yellowish-wh. powd.—SOL.: W., A., but more eas. w. heat.—USES: *Intern.*, promoting biliary & intest. secretion, alone or w. resolvents, cathartics, or alteratives.—*Extern.*, in toothpastes, tooth powders, toothwashes, enemas, suppositories, detergents, etc.—DOSE: 0.3–1.3 Gm. (5–20 grn.) sev'l t.p.d.

SOAP, AMMONIA—see Ammonium Oleate

SOAP BARK—see Quillaja

Soap, Curd—B.P.

Sapo Animalis.—Fr. purified animal fat w. NaOH.—USES: As pill excipient f. resinous substcs & volat. oils.

Soap, Soft, Merck—U.S.P. X

Sapo Mollis; Sapo Viridis; Green Soap.—Soap made fr. linseed oil, NaOH & KOH.—Yellowish-white, to brownish-yellow mass.—SOL.: Hot W., hot A.—ACTION: Detergent; Antisep.; Disinfect.—USES: *Extern.*, chron. skin dis., partic. in scabies (inunctions 1–2 t.p.d.) psoriasis, ecz., pityriasis; also to facilitate resorption of chron. scrofulous & syphilitic lymphatic swellings, as well as of exudates in serous cavities (2–4 inunctions p.d. of a piece of soap the size of an almond to walnut at the affected part).—VETER. MED., in itching & parasitic skin dis., swellings & inflam. of tendons & joints.

do. —B.P.

Fr. olive oil & KOH.—Yellowish-green, gelatinous mass.—SOL.: 4 cold and 1 boil. W., 1 A.—USES: As of preceding, & also in liniments, shampoos, & as enema (1:30–40 warm W.) to remove impacted feces.

SOAPROOT—see Saponaria

SOAPSTONE—see Talc

SOAPWORT—see Saponaria

SODA—see Sodium Carbonate

"SODA", OR CAUSTIC SODA—see Sodium Hydroxide

SODA-LIME—see Sodium Hydroxide with Lime

SODA LYE—see Sodium Hydroxide, Solution

SODA NITER, OR SALTPETER—see Sodium Nitrate

SODA, TARTRATED—see Potassium and Sodium Tartrate

SODAMIDE—see Sodium Amide

Sodium Merck—Reagent—Metallic

Na = 23.00.—Silver-wh. when freshly cut, but rapidly becomes dull gray on expos. to air, & becomes covered w. crusts of NaO, NaOH, & Na₂CO₃; soft & waxy at ord. temp., brittle at low temp.—MELT.: Abt 95° C.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO ₃).....	0.002%
Heavy Metals.....	0.000%
Nitrogen (N).....	0.030%

USES: Prepar. volumetr. soluts.; as reducer, either as metal or as amalgam; detect. water, alcoh., HNO₃, SO₂, As; & N, S, P, & halogens in organic comp'ds; prepar. H; dehydrating agent; reag. f. N in organ. substcs. (Lassaigue), differentiating α- & β-naphthols (Kunz-Krause), A. (Dragendorff), W. (Hardy); as flux in decomp. tin stone, aluminum silicate, etc., accord. to Hempel, etc.

Sodium Merck—Metallic

Na = 23.00; first obtained by Davy in 1807, electrolytically.—Light, soft, ductile, mall. metal; silver-wh. luster, where freshly cut; dull gray when oxidized by air; rapidly oxidized in air; decomposes W. violently w. evol. of H which ignites.—USES: *Techn.*, manuf. o. metals (e.g., Mg, Al, Si); prepar'g H; dehydrating ether & o. organic comp'ds; manuf. Na₂O₂; as catalyst; desulphurizing petroleum; manuf. synthetic perfumes, intermediates, & indigo & o. synthetic dyes.—CAUT.: Must be kept immersed in a liq. free fr. oxygen, such as naphtha or benzene.

SODIUM ABIETINATE—see Sodium Sylvate

Sodium Acetate Merck—Reagent—Cryst.

NaC₂H₃O₂ + 3H₂O = 136.08.—Colorl., transparent, cryst.—SOL.: Eas. W.; moderately sol. in A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Sulphate (SO ₃).....	0.002%
Arsenic (As).....	0.0003%
Barium (Ba).....	0.001%
Calcium & Magnesium (Ca, Mg).....	0.010%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%
Substcs Reduc'g KMnO ₄	None
Free Acid (as C ₂ H ₄ O ₂).....	0.006%
Free Alkali (as NaOH).....	0.004%

USES: Detect. narcotine, papaverine, narceine; quant. separ'n of opium alkaloids; pptng Fe & Al; determ. H₃PO₄; reag. f. tannin (Baemes), glucose (Fischer; Hager; Jaksch), gallic acid (Flückiger), & creatinine (Kolisch).

Sodium Acetate Merck—C.P.—Cryst. or Gran.

NaC₂H₃O₂ + 3H₂O = 136.08.—Colorl., transp. cryst., or granules.—SOL.: Eas. W., abt 20 A.; (5% aq. solut. neutral or sitly alkal. to litmus or ph'thalein).

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.010%
Arsenic (As).....	0.0005%
Calcium & Magnesium (Ca, Mg).....	0.020%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Anhydrous—C.P.

NaC₂H₃O₂ = 82.03.—Wh. hygroscop. powd.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.030%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Sodium Carbonate (Na ₂ CO ₃)..	0.050%
Water.....	1.000%

do. Merck—U.S.P. X—Cryst. or Gran.

Colorl., cryst. or gran.; efflor. on expos.; at abt 58° C. begins to liquefy, at abt 120° C. becomes anhydrous, & at higher temp. is decomp'd w. evol'n of inflam. vapors.—SOL.: 0.8 W., 19 A. at 25° C., U.S.P.—ACTION: Diuretic.—USES: Cystitis, dropsy, & o. dis. of urin. organs; diarrh.—*Techn.*, in photography. Red Salt, the technical grade, is used as a mordant f. red; manuf. acetic acid, acetic ether, Schweinfurth green, intermediates, dyes, &c. Requires f. fusion 4 times as much heat as an equal vol. W. can take up, & the heat is v. slowly given up. The salt is hence used f. filling foot-warmers, milk thermophores, &c.; also used as a dehydrating agent.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose, 1.5 Gm. (25 grn.).—IN VETER. MED., cattle, 50–100 Gm. (12½–25 dr.); horses, 20–50 Gm. (5–12½ dr.); dogs, 0.5–2 Gm. (8–30 grn.).

SODIUM ACETYL-*p*-AMINOPHENYLARSINATE—see Arsacetin

SODIUM *p*-ACETYLAMINOPHENYLSTIBINATE—see StibenyI

SODIUM ACETYLARSANILATE—see Arsacetin

SODIUM ACID CARBONATE—see Sodium Bicarbonate

SODIUM ACID CHROMATE—see Sodium Dichromate

SODIUM ACID PHOSPHATE—see Sodium Phosphate, Monobasic

SODIUM ACID SULPHATE—see Sodium Bisulphate

SODIUM ACID SULPHITE—see Sodium Bisulphite

SODIUM ACID TARTRATE—see Sodium Bitartrate

Sodium Agaricinate

Wh., tastel. powd.—SOL.: Eas. W.—Anti-hidrotic.—USES: Night-sweats in phth.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grns.) at night.

Sodium Alizarinsulphonate Merck

Alizarin Red S; Alizarin Carmine.— $\text{NaC}_{14}\text{H}_5\text{O}_2\cdot(\text{OH})_2\text{SO}_3 + \text{H}_2\text{O} = 360.20$.—Orange-yellow powd.—SOL.: A., eas. W. w. yellow color.—USES: Dye; stain in microsc.; test f. methyl A. (Reichardt); in 1% aqu. solut. as indicator (acids = yellow; alkalies = red).

SODIUM ALUM—see Aluminum & Sodium Sulphate

Sodium Aluminate

Mixt. of $3(\text{Na}_2\text{O}\cdot\text{Al}_2\text{O}_3)$ & $\text{Na}_2\text{O}\cdot\text{Al}_2\text{O}_3$.—Wh., gran. mass.—SOL.: W.—USES: Dyeing; printing on fabrics; manuf. lake colors; sizing paper; manuf. milk-glass; hardening building stones; soap manuf.

Sodium Amalgam Merck—2% Sodium

Soft pieces w. silver luster, or gray lumps.—SOL.: HNO_3 ; decomp'd by W. w. violent evol. of H, form'n of NaOH, & pptn of metal. Hg.—USES: Reducer; separating gold.

Sodium Amide

Sodamide.— $\text{NaNH}_2 = 39.02$.—Fr. metal. Na & dry NH_3 gas.—Wh. cryst. powd.; decomp. by W. & in moist air.—MELT.: 155°C .—BOIL.: 400°C .—USES: Manuf. sodium cyanide, & artif. indigo; also in var. o. syntheses.—CAUT.: Keep dry.

SODIUM AMINARSONATE—see Sodium Arsanilate

SODIUM AMINOBETANAPHTHOLBETAMONOSULPHONATE—see Eikonogen

SODIUM *p*-AMINOPHENYLARSONATE—see Sodium Arsanilate

SODIUM AMINOSUCCINATE—see Sodium Asparaginate

SODIUM-AMMONIUM-HYDROGEN PHOSPHATE—see Sodium & Ammonium Phosphate

Sodium Amylsulphate

$2\text{NaC}_5\text{H}_{11}\text{SO}_4 + 3\text{H}_2\text{O} = 434.39$.—Wh. to yellowish powd.—SOL.: v. eas. W.

SODIUM ANHYDROMETHYLENECITRATE—see Citarin

SODIUM ANILINEAZOBETANAPHTHOLDISULPHONATE—see Orange GG

SODIUM ANILINESULPHONATE—see Sodium Sulphanilate

Sodium Anisate

$\text{C}_6\text{H}_4\cdot\text{OCH}_3\cdot\text{COONa}[1:4] + \frac{1}{2}\text{H}_2\text{O} = 183.10$.—Wh., cryst. powd.—SOL.: Eas. W.—ACTION: Antipyr.; Antirheum.; Analges.—USES: Inst. of sod. salicylate in sciatica, rheum., &c.—DOSE: 0.3–1 Gm. (5–15 grn.) sev'l t.p.d.

Sodium Anthranilate

Sodium Orthoaminobenzoate.— $\text{C}_6\text{H}_4(\text{NH}_2)\cdot\text{COONa} = 159.09$.—Grayish-wh. to violet-gray powd.—SOL.: W., A.

Sodium Antimonate

Sodium Metantimonate, Pyroantimonate, or Hydropyroantimonate.— $\text{Na}_2\text{H}_2\text{Sb}_2\text{O}_7 + 6\text{H}_2\text{O}$ (?), or, $2\text{NaSbO}_3 + 7\text{H}_2\text{O}$ (?) = 508.51.—Wh., gran. powd.—SOL.: v. sltly in W.—USES: Techn., manuf. opaque glass, & also opaque glazes.

Sodium Arsanilate

Atoxy; Soamin; Sodium Aminarsonate, or *p*-Aminophenylarsonate, B.P.C.— $\text{C}_6\text{H}_4(\text{NH}_2)\cdot(\text{AsO}\cdot\text{OH})\cdot\text{ONa} + 4\text{H}_2\text{O} = 311.12$.—Wh., cryst., odorl. powd.; 24% As.—SOL.: 5–6 W., abt 125 A. (90%), B.P.C.—USES: Sleeping sickness; trypanosomiasis; syph.; malaria; pellagra; kala-azar; anemia & chlorosis; alopecia, exfoliative dermatitis, psoriasis, lichen ruber, & pemphigus.—DOSE: *Subcut.* or *intramusc.*, 0.02–0.2 Gm. ($\frac{1}{2}$ –3 grn.) ev. o. day only, & incr. dose, if necess. in syph., to 0.6 Gm. (10 grn.) & until a total of 6.5 Gm. (100 grn.) have been given.—In malaria, 0.5 cc. (8 M) of 10% solut. subcut. 2 hrs before paroxysm expected.—Should not be given by mouth as salt is decomp'd by acid gastric contents.—INCOMP.: Acids, alkalies, salts of mercury & heavy metals.—CAUT.: Has been known to cause optic neuritis & permanent blindness.

Sodium Arsenate Merck—Dibasic—C.P.—Cryst.

Sodium Arseniate; Disodium Arsen(i)ate.— $\text{Na}_2\text{HASO}_4 + 7\text{H}_2\text{O} = 312.08$.—Colorl., odorl., cryst.—SOL.: 1.5 cold, 1 boil., W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Arsenite (As_2O_3)	0.002%
Chloride (Cl)	0.003%
Nitrate (N_2O_5)	0.005%
Sulphate (SO_3)	0.030%
Iron (Fe)	0.002%
Other Heavy Metals	0.001%

USES: As test f. morphine (Donath; Tattersall; Vitali), aconitine (Reichard), papaverine (Tattersall), & codeine (Tattersall; Vitali).

do. Merck—Dibasic—N.F. V—Cryst.

DESCRIPT.: As preced'g.—Colorl., odorl., monocl. prisms; mild, alk. taste.—SOL.: 1.5 W., & sltly A., at 25°C , 1 boil. W., alm. insol. boil. A., N.F. V.—ACTION: Alter.; Tonic; Anti-sep.; Antiper.—USES: *Intern.*, malaria, ague, debility, anemia, chorea, & nervous dis.—*Extern.*, baths f. rheum. & gout, 2–6 Gm. (30–90 grn.) f. a bath; in soft chancre as paint (2% suspens. in 95% A.), or inj. 1–2 cc. 1% aqu. solut.; in cigarettes f. asthma & phth.—*Techn.*, in dyeing w. Turkey-red oil, & in printing fabrics; in various insecticides & fungicides.—DOSE: 0.001–0.003–0.008 Gm. ($\frac{1}{60}$ – $\frac{1}{20}$ – $\frac{1}{8}$ grn.) 2–3 t.p.d.; aver. dose, 0.005 Gm. ($\frac{1}{12}$ grn.).—MAX. D.: 0.015 Gm. ($\frac{1}{4}$ grn.).—ANTID.: Emetics, stomach siphon, fresh $\text{Fe}(\text{OH})_3$, dialyzed iron, $\text{Fe}(\text{OH})_3 + \text{MgO}$, demulcents, stimulants, warmth, &c.—CAUT.: Poison!

Sodium Arsenate Merck—N.F. V—Dried

Anhydrous Sodium Arsenate.— $\text{Na}_2\text{HAsO}_4 = 185.97$.—Wh., gran., odorl. powd.—SOL.: 3.1 W. & sltly A., at 25°C ., abt 1.3 boil. W., & alm. insol. boil. A., N.F. V; 6 W.—USES: As of the cryst. salt.—DOSE: 0.0015–0.006 Gm. ($\frac{1}{40}$ – $\frac{1}{10}$ grn.); aver. dose, 0.003 Gm. ($\frac{1}{20}$ grn.).—MAX. D.: 0.006 Gm. ($\frac{1}{10}$ grn.) single.

do. —Solution—N.F. V; B.P.

1% anhyd. sod. arsenate.—Clear, colorl. liq.—ACTION: Alter.; Antiper.; Tonic.—USES: Skin dis., chorea, neural., malaria, &c.—DOSE: 0.12–0.5 cc. (2–8 M).—ANTID.: Emetics, stom. siphon, freshly pptd $\text{Fe}(\text{OH})_3$, &c.

do. —Dilute Solution—N.F. V

Pearson's Solution.—1 Gm. anhydr. sod. arsenate in 1000 cc. W.—ACTION & USES: As of the preceding.—DOSE: Aver., 2 cc. (30 M).—NOTE: This solut. is *one-tenth* the strength of the preceding solut.

SODIUM ARSENIATE—see Sodium Arsenate

Sodium Arsenite Merck—Pure

Sodium Martsenite.—Approx., $\text{NaAsO}_2 = 129.96$.—Grayish-wh. powd.—SOL.: W.; sltly A.—ACTION: Antisep.—USES: Syph., trypanosomiasis.

do. Merck—Technical, 90%–95%—Powd.

DESCRIPT. & SOL.: As of the preced'g.—USES: *Techn.*, manuf. arsenical soap, f. use on skins, hides; f. treating vines in winter; dyeing, etc.

SODIUM ARSENUMETHYLATE—see Sodium Methylarsenate

SODIUM ARSPHENAMINE—see Arsphenamine Sodium

SODIUM ARSPHENOLAMINE—see Arsphenamine Sodium

Sodium Asparaginate Merck

Sodium Aminosuccinate.— $\text{COONa} \cdot \text{CH}_2 \cdot \text{CHNH}_2 \cdot \text{COOH} + \text{H}_2\text{O} = 173.09$.—Wh. cryst.—SOL.: v. eas. W.

SODIUM AUROBROMIDE—see Gold & Sodium Bromide

SODIUM AUROCYANIDE—see Gold & Sodium Cyanide

SODIUM AUROTHIOBENZIMIDAZOLCARBOXYLATE—see Triphal

SODIUM AUROTHIOSULPHATE—see Gold & Sodium Thiosulphate

SODIUM AZOALPHANAPHTHOLSULPHANILATE—see Tropaeoline O O O No. 1

SODIUM AZOBETANAPHTHOLSULPHANILATE—see Tropaeoline O O O No. 2

SODIUM BENZENESULPHOCHLORAMINE—see Chloramine-B

Sodium Benzenesulphonate

Sodium Benzolsulphonate.— $\text{NaC}_6\text{H}_5\text{SO}_3 = 180.13$.—Wh. cryst.—SOL.: W.

Sodium *p*-Benzenesulphonicacid-azo- α -naphthylamine

$\text{NH}_2 \cdot \text{C}_{10}\text{H}_7 \cdot \text{N} : \text{N} \cdot \text{C}_6\text{H}_4 \cdot \text{SO}_3\text{Na} = 349.26$.—Orange red, cryst. powd.—SOL.: Hot W.—USES: As indic., us'g a solut. of 0.1 Gm. in 600 cc. A. & 400 cc. W., 8–12 drops of which are added to 10 cc. liq.; PH = red 3.5–5.7 yellow.

SODIUM BENZENESULPHOPARAMINOPHENYLARSINATE—see Hektin

SODIUM BENZIDINDISAZOBINAPHTHYLAMINESULPHONATE—see Congo Red

Sodium Benzoate Merck—U.S.P. X—Gran. or Powd.

$\text{NaC}_7\text{H}_5\text{O}_2 = 144.08$.—Wh., amorph., odorl., gran., or cryst., powd.; sweetish, astring. taste.—SOL.: 1.8 W., 61 A. at 25°C ., & 1.4 boil. W., U.S.P.—ACTION: Antirheum.; Antipyr.; Antisep.—USES: *Intern.*, rheum., gout, uremia, cystitis, lithemia, diphth., tonsillitis, phth., puerperal fever, & marasmus; laryngitis, acute bronchitis, colds, Bright's dis. & gravel. Said quickly to dry up secretions of coryza or bronch. or a cold.—*Extern.*, 5% solut. as inhalation in chron. pharyngitis; 1.5% solut. as applic. to wounds.—*Techn.*, as preservative, partic. of food products (a proport. of 1:1000 is permitted).—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose, 1 Gm. (15 grn.).—In VETER. MED. as expectorant, & in cystitis & pyelitis; *horses*, 2–5 Gm. (30–75 grn.); *dogs*, 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.).—INCOMPAT.: Acids; ferric salts.

SODIUM BENZOLSULPHONATE—see Sodium Benzenesulphonate

SODIUM BENZYL SUCCINATE—see Benzycin

SODIUM BETANAPHTHOLATE—see Microcidin

SODIUM BIBORATE—see Sodium Borate

Sodium Bicarbonate Merck—Reagent—Powd.

$\text{NaHCO}_3 = 84.01$.—Wh. cryst. powd.—SOL.: Abt 12 W.; insol. A.

MAXIMUM OF IMPURITIES

Normal Carbonate (Na_2CO_3)	Trace
Chloride (Cl)	0.003%
Phosphate (P_2O_5)	0.001%
Silicate (SiO_2)	0.000%
Sulphocyanate (CNS)	0.020%
Sulphur Comp'ds (as SO_3)	0.003%
Thiosulphate ($\text{Na}_2\text{S}_2\text{O}_3$)	0.006%
Ammonium Comp'ds (NH_3)	0.000%
Calcium & Magnesium (Ca, Mg)	0.010%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%
Potassium (K)	Trace

USES: Prepar'g volumetric soluts.; detect'g alkaloids; general neutralizer.

Sodium Bicarbonate Merck—C.P.—Powd.

Monosodium, or Sodium Hydrogen, Carbonate; Acid Sodium Carbonate; Baking Soda.— $\text{NaHCO}_3 = 84.01$.—Wh. cryst. powd.—SOL.: Abt 12 W.; insol. A.

MAXIMUM OF IMPURITIES

Normal Carbonate (Na_2CO_3) Abt	1.0%
Chloride (Cl).....	0.005%
Phosphate (P_2O_5).....	0.004%
Sulphur Comp'ds (as SO_3).....	0.010%
Ammonium Comp'ds (NH_3).....	0.002%
Calcium & Magnesium (Ca, Mg)	0.020%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Powd.

Wh., cryst. powd.; cooling, mildly alk. taste.—**SOL.:** 10 W. at 25° C., insol. A., U.S.P.—**ACTION:** Antacid; Antisep.—**USES:** *Intern.*, acid stom., gout, artic. rheumatism, pneum., heartburn, dyspep., dipth., memb. croup, diab., diabetic coma, lithiasis, cystitis, &c.—*Extern.*, satur. solut. as dressing f. burns, wounds, furuncles, ulcer of leg, phlegmons, paraitia, abscesses, orchitis, insect bites, hives; also in toothache due to acidity.—*Techn.*, treating silk & wool; gilding & platinum plating soluts; manuf. pure Na_2CO_3 , mineral waters, effervesc. salts & beverages, baking powd.; cleaning comp'ds; in fire extinguishers; preventing timber mold.—**DOSE:** 0.6–4 Gm. (10–60 grn.); aver. dose, 1 Gm. (15 grn.); in iodism, gout, & vomit. of pregnancy 60 Gm. (2 oz.) or more p.d.; in diabetic coma large doses (up to 240 Gm. [8 oz.] p. day), & sterile salt solut. sat. w. the bicarb. subcut.—Also in **VETER. MED.**, cattle, 50–100 Gm. (12½–25 dr.); horses, 25–50 Gm. (6–12½ dr.); sheep & goats, 4–15 Gm. (1–4 dr.); pigs, 2–5 Gm. (30–75 grn.); dogs, 0.5–1 Gm. (8–15 grn.); cats & fowl, 0.2–1 Gm. (3–15 grn.).

SODIUM BICHROMATE—see Sodium Dichromate

Sodium Bifluoride

$\text{NaF.HF} = 62.01$.—Wh., cryst. powd.—**SOL.:** Hot W.—**ACTION:** Powerful Antisep.—**USES:** Preservative, etching & frosting glass, fixing zoological & anatomical specimens.

SODIUM BIPHOSPHATE—see Sodium Phosphate, Monobasic

Sodium Bismuthate Merck—Reagent

Yellow to brown, amorph., somewh. hygros. powd.; cont. at least 4% active O = at least 7% $\text{NaBiO}_3 = 280.00$.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Manganese (Mn).....	0.001%

USES: Determ. Mn in iron, steel & ores.

Sodium Bisulphate Merck—C.P.—Cryst.

Sodium Acid Sulphate.— $\text{NaHSO}_4 + \text{H}_2\text{O} = 138.08$.—Colorl. cryst.—**SOL.:** Abt 1.5 W. (solut. acid to litmus).

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.000%
Aluminum (Al).....	0.003%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.005%

USES: *Chem.*, as flux in decomposing minerals; reag. f. resorcinol (Bornträger), & sesame oil (Gassend).—*Medic.*, as addition to drinking W. (3:10,000) to prevent typhoid infection in the field, & at the same time relieve thirst.

do. Merck—C.P.—Fused

$\text{NaHSO}_4 = 120.07$.—White, fused lumps.—**SOL.:** W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.000%
Aluminum (Al).....	0.003%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.005%

do. —Fused

Grayish-wh. masses.—**USES:** *Techn.*, f. liberating CO_2 in carbonic-acid baths; in thermophores; mordant in dyeing; prepar. neutral Na_2SO_4 ; pickling metals; carbonizing wool; bleaching & swelling leather; manuf. glass; regenerating rubber; sizing paper; manuf. magnesia cements, &c.

Sodium Bisulphite Merck—C.P.

Acid Sodium Sulphite.— $\text{NaHSO}_3 = 104.07$.—Wh., cryst. powd.; faint SO_2 odor; disagree. taste.—**SOL.:** Abt 4 W.; 80 A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Arsenic (As).....	0.000%
Other Heavy Metals.....	Trace

USES: Reducing agent, especially arsenic to arsenous acid; determ. ketones & aldehydes; assaying oils cont'g cinnamic aldehyde or citral, & nitrobenzene in benzaldehyde; detect'g xanthine; also as reag. f. formic acid (Comanducci), aldehydes (Gayon; Mohler), rapeseed oil (Palas), & also nitrobenzene (Wagner).

do. Merck—Pure, Dry

DESCRIPT.: As preced'g.—**SOL.:** 3.5 W., 70 A. at 25° C., abt 2 boil. W., abt 49 boil. A.—**ACTION:** Antisep.; Antifermmentative.—**USES:** *Intern.*, sore mouth, dipth., yeasty vomiting.—*Extern.*, aqu. solut. in skin dis.—*Techn.*, manuf. acetone bisulphite.—**DOSE:** 0.3–0.6 Gm. (5–10 grn.); aver. dose, 0.5 Gm. (7½ grn.).—**INCOMP.:** Acids; oxidizers.

do. Merck—Technical—Dry

Leucogen.—**ACTION:** Antiseptic; Antifermmentative.—**USES:** *Techn.*, as disinfectant & bleach, partic. f. wool; in dyeing f. preparing hot & cold indigo vats; in paper-making in place of antichlor to remove Cl fr. bleached fibers (straw, wood, paper, rags, & cotton); remov'g permanganate stains fr. skin & clothing, as preserv. of egg-yolk (in manuf. gloves), & of saccharine liquids; prepar. pure aldehydes; fotogr.; & as antiseptic in fermentation industries.

Sodium Bitartrate Merck—C.P.—Cryst.

Acid Sodium Tartrate.— $\text{NaHC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O} = 190.70$.—Wh., cryst. powd.—SOL.: Abt 9 cold, abt 2 boil., W. (solut. acid to litmus); alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Phosphate (P_2O_5).....	0.003%
Sulphate (SO_3).....	0.005%
Ammonium Comp'ds (NH_3)...	0.020%
Calcium (Ca).....	0.020%
Heavy Metals.....	0.000%

USES: Detect'g K in neutral solut. (Plunket).

do. Merck—Cryst.

Wh. cryst. granules or gran. powd.—SOL.: 9 W.; 2 boil. W.

Sodium Borate Merck—Reagent—Cryst.

Borax; Sodium Biborate, or Tetraborate.— $\text{Na}_2\text{B}_4\text{O}_7 + 10\text{H}_2\text{O} = 381.76$.—Wh., hard, prismatic cryst.—SOL.: Abt 20 W. (solut. alkal. to litmus), less than 1 boil'g W., abt 2 G.; alm. insol. A.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.001%
Phosphate (P_2O_5).....	0.001%
Sulphate (SO_3).....	0.005%
Arsenic (As).....	0.0003%
Calcium (Ca).....	0.005%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Blowpipe analysis; flux in metallurgy; in volumetr. anal.; also as reag. f. aloes (Schönleben), Japan wax in tallow (Dieterich), G. (Hager; Senier-Lowe), alcohols (Jehn), curcuma (Maisch), oils & butter (Schönvogel), Indian gum in tragacanth (Scoville), & pyridine (Wöhler).

Sodium Borate Merck—C.P.—Powd.

Borax; Sodium Tetraborate, or Pyroborate, or Biborate.—Not to be confounded w. Neutral Sodium Borate, also improperly known as "Sodium Tetraborate."— $\text{Na}_2\text{B}_4\text{O}_7 + 10\text{H}_2\text{O} = 381.76$.—Hard, wh. cryst., or wh. powd.; sweetish, alkal. taste.—SOL.: Abt 20 cold, & less than 1 boil., W. (solut. alkal. to litmus), abt 2 G.; pract. insol. A.

MAXIMUM OF IMPURITIES

Carbonate (CO_2).....	0.000%
Chloride (Cl).....	0.003%
Sulphate (SO_3).....	0.030%
Arsenic (As).....	0.0005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Refined—U.S.P. X—Cryst. or Powd.

DESCRIPT.: As preced'g.—SOL.: 15 W., abt 1 G., at 25° C., 0.6 boil. W., insol. A., U.S.P.—ACTION: Antisep.; Emmen.; Diuret.; Antiepile.—USES: *Intern.*, cystitis, gastritis, diarrh., amenorr., dysmenorr., uric-acid diathesis, also

epilepsy.—*Extern.*, skin dis., diphth., sore mouth, conjunctivitis, urethritis; as gargle & paint; as collyr. in conjunctiv., in moist bandages, & washes, in 1–5:100 solut., lotions, &c. In aphthae & sprue in infants, w. honey (1:10).—*Techn.*, as preserv., either alone or mixed w. o. antiseptics, f. wood-fungus.—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver. dose 0.75 Gm. (12 grn.).—*VETER. MED.*, *extern.*, as antisept. wash; & *intern.* as diur.; horses & cattle, 10–25 Gm. (2½–6 dr.); sheep, goats & pigs, 2–5 Gm. (30–75 grn.); dogs, 0.5–2 Gm. (0.8–30 grn.).—INCOMPAT.: Acids; alkaloidal & metallic salts.—NOTE: See also Tincal (natural Borax).

do. Merck—Calcined

$\text{Na}_2\text{B}_4\text{O}_7$ w. abt 25% W.—Wh., v. light powd.—SOL.: W.—USES: As of the following.

do. Merck—Fused—Ground or Powd.

Borax Glass; Anhydrous Sodium Borate.— $\text{Na}_2\text{B}_4\text{O}_7 = 201.60$.—Wh. powd., or glass-like plates becom'g opaque on expos. to the air.—SOL.: W.—USES: *Techn.*, in glazes & enamels; impregnating candle wicks; insect exterminators; fireproofing fabrics; curing & preserving skins; preserving fish; soldering gold, copper, & o. metals; as flux, welding iron, etc.

Sodium Borate Merck—"Neutral"

"Sodium Tetraborate" improperly.—Obt. by evap. to dryness a hot solut. eq. parts borax & boric acid.—Wh. powd.—SOL.: W.—ACTION: Antiseptic.—USES: *Extern.*, dis. of nose & ear a cold, satur. solut. used f. bandages.—See also Sodium Borate, & Metaborate.

Sodium Borobenzoate Merck—N.F. IV

Mixt. 43 parts borax & 57 parts sod. benzoate.—Wh. powd.—SOL.: W.—ACTION: Antisep.; Antilithic; Diur.—USES: Rheum., gravel, & puerperal fever.—DOSE: Aver., 2 Gm. (30 grn.).

Sodium Borocitrate

Mixt. sod. citrate & borax.—Wh. powd.—SOL.: W.—ACTION: Antisep.; Diur.—USES: Lithemia & lithemic gravel.—DOSE: 1–2 Gm. (15–30 grn.).

Sodium Borosalicylate

Borsalyl.—Mixt. sod. salicylate, & boric acid.—Wh. powd.—SOL.: W.—ACTION: Antisep.; Antirheum.; Analg.—USES: Rheum., gout, scarlat., pleurisy, & chorea; also *techn.* as preservat.—DOSE: 0.3–2 Gm. (5–30 grn.).—Appl., w. glycerin, lanum, petrolatum, or o. ointment base.

Sodium Borotartrate

Mixt. sod. tartrate & borax.—Wh. powd.—SOL.: W.—ACTION: Antisep.; Diur.—USES: Lithemia & lithemic gravel.—DOSE: 2–8 Gm. (30–120 grn.) p.d.

Sodium Bromate Merck—C.P.

$\text{NaBrO}_3 = 150.92$.—Colorl. cryst. or cryst. powd.—SOL.: 2.5 cold, 1.1 boil'g W.—MELT.: Abt 380° C. w. decomp.

MAXIMUM OF IMPURITIES

Bromide (Br)	0.050%
Sulphate (SO ₃)	0.005%
Iron (Fe)	0.002%
Other Heavy Metals	0.000%

do. Merck

DESCRIPT., SOL., etc.: As preced'g.

Sodium Bromide Merck—U.S.P. X—Gran. or Powd.

NaBr = 102.92.—Wh. or colorl. gran., or gran. powd.; saline, feeble, bitter taste; absorbs moist. fr. air without being deliquescent.—SOL.: Abt 1.1 W., 16 A. at 25° C., U.S.P.—MELT.: Abt 760° C.—ACTION: Sed.; Alter.; Diur.—USES: Epilepsy, headache, hysteria, nymphomania, satyriasis, delir. trem., insom., nervousn., scrof., &c. Cont. more Br than KBr, & is less depressing.—*Techn.*, in photogr.—DOSE: 0.6–4 Gm. (10–60 grn.); aver. dose, 1 Gm. (15 grn.); in *epilepsy*, begin'g w. 1–2 Gm. (15–30 grn.) & increas'g to 10 Gm. (150 grn.) p.d., or, 4–12 Gm. (60–180 grn.) subcut. in 1:16 solut.; in *delirium trem.*, 50–60 cc. (1½–2 fl. oz.) of 1% sterile solut. subdurally after remov. like quant. of cerebrospinal fluid.—In VETER. MED. inst. of & like potass. bromide.—INCOMPAT.: Acids, alkaloidal salts, salts of Sb, Bi, Cu, Pb, Hg, & Ag.—CAUT.: Keep well stoppered.

Sodium Cacodylate Merck—U.S.P. X

Sodium Dimethylarsenate.—Na(CH₃)₂ AsO₂ + 3H₂O = 214.06; 72%–74% anhydrous salt.—Wh. odorl., deliq. cryst. or gran. powd.—SOL.: Abt 0.5 W., abt 2.5 A., at 25° C., U.S.P.—MELT.: Abt 60° C., & becomes anhydrous at 120° C.—ACTION: Alter.; Hematinic; as of As₂O₃; reported non-toxic.—USES: Inst. of arsenates (bec. far less toxic) in pernicious & simple anemia, neuroses accompanying anemia, neuritis, ecz., obstinate psoriasis, pseudoleucemia, diabetes, leprosy, chlorosis, tuberculo-sis, malarial cachexy, phthisis, chorea, syph., erythema, pellagra; also subcut. in pulm. tuberc., osseous tuberc., neurasth., chron. malaria, anem., & carcinoma; also in leucemia, & Basedow's dis., etc.—DOSES: Adults, 0.03–0.12 Gm. (½–2 grn.); aver. dose, 0.06 Gm. (1 grn.); in skin diseases, 0.05 Gm. (¾ grn.) 1–5 t.p.d.—Subcut., Intraven. or Intramusc. *Inj.*, 0.05–0.1 Gm. (¾–1½ grn.) in 5% aqu. solut.; in pellagra, 0.42 Gm. (7 grn.) once p. week by deep intramusc. *inj.*—Children, 10–15 yrs, 0.03–0.04 Gm. (½–¾ grn.) p.d.; 6–10 yrs, 0.02–0.03 Gm. (½–½ grn.) p.d.; 3–4 yrs, 0.01 Gm. (¼ grn.) p.d.—VETER. MED., *dogs*, 0.1–0.3 Gm. (1½–5 grn.).

SODIUM-CAFFEINE IODIDE—see Iodocaffeine

Sodium Camphorate

Na₂C₁₀H₁₄O₄ = 244.16.—Wh., deliq. powd.—SOL.: W.—ACTION: Antiseptic; Antihidrotic.—USES: As of camphoric acid.

Sodium Cantharidate

Na₂C₁₀H₁₄O₆ + 2H₂O = 312.19.—Wh., cryst. powd.—SOL.: W.—ACTION: Antisep.; Anti-

tuberc.—USES: As an *inj.* in laryngeal tubercul.—DOSE: 0.2–0.36 cc. (3–6 M) of 0.6:1000 solut. hypoderm.

Sodium Carbolate

Sodium Phenate, or Phenolate; Phenol Sodium.—NaC₆H₅O = 116.07.—Wh., deliq. sticks; eas. become yellow to red in air.—SOL.: v. eas. W.—ACTION: Antisep.—USES: *Intern.*, antisep. in diar., dysent., typhoid fever, &c.—*Extern.*, like phenol, in bandages, in aqu. solut., or w. linseed oil (1:5–10).—DOSE: 0.1–0.3 Gm. (1½–5 grn.).—CAUT.: Keep well stoppered.

Sodium Carbonate Merck—Reagent—Cryst.

Na₂CO₃ + 10H₂O = 286.17.—Colorl., transpar., efflores. cryst.—SOL.: Abt 1.6 W. (solut. strongly alkal. to litmus); insol. A.

MAXIMUM OF IMPURITIES

Substcs Insol. in Water	0.000%
Sodium Hydroxide (NaOH) ..	0.100%
Chloride (Cl)	0.001%
Nitrate (N ₂ O ₅)	0.000%
Phosphate (P ₂ O ₅)	0.001%
Silicate (SiO ₂)	0.000%
Sulphate (SO ₃)	0.002%
Ammonium Comp'ds (NH ₃) ..	0.000%
Arsenic (As)	0.00005%
Calcium & Magnesium (Ca, Mg)	0.003%
Iron (Fe)	0.000%
Other Heavy Metals	0.000%
Potassium (K)	Trace

USES: Neutralizing & alkalizing; pptg various metals (except alkalies); decomp'g minerals:

do. Merck—Reagent—Anhydrous

Na₂CO₃ = 106.01.—Wh., hygrosc. powd.—SOL.: Abt 5 W.

MAXIMUM OF IMPURITIES

Substcs Insol. in Water	0.000%
Sodium Hydroxide (NaOH) ..	0.300%
Chloride (Cl)	0.003%
Nitrate (N ₂ O ₅)	0.000%
Phosphate (P ₂ O ₅)	0.002%
Alumina & Silica (Al ₂ O ₃ , SiO ₂)	0.002%
Sulphate (SO ₃)	0.003%
Ammonium Compds (NH ₃) ..	0.000%
Arsenic (As)	0.0001%
Calcium & Magnesium (Ca, Mg)	0.008%
Iron (Fe)	0.0003%
Other Heavy Metals	0.000%
Potassium	Trace

USES: Standardizing volumetric soluts; flux, alone or w. K₂CO₃, KNO₃, etc., in analysis of silicates, titanates, organic substcs.; detect'g Mn & Cr; in blowpipe anal.; also as of Sod. Carbonate Cryst.

Sodium Carbonate Merck—C.P.—Cryst.

Soda.—Na₂CO₃ + 10H₂O = 286.17.—Colorl., transpar. cryst.; strongly alkaline taste; efflores. on expos.—SOL.: 1.6 W.; 1 G.; insol. A.—MELT.: Abt 33° C.

MAXIMUM OF IMPURITIES

Substcs Insol. in Water.....	0.000%
Chloride (Cl).....	0.003%
Nitrate (N ₂ O ₅).....	0.003%
Phosphate (P ₂ O ₅).....	0.002%
Sulphate (SO ₃).....	0.003%
Ammonium Comp'ds (NH ₃)...	0.000%
Calcium & Magnesium (Ca, Mg)	0.005%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Potassium.....	Trace

USES: As of the Cryst. Reagent, above.

Sodium Carbonate Merck—C.P.—Anhydrous

Exsiccated Sodium Carbonate.—Na₂CO₃ = 106.01.—Wh., hygrosc. powd.—SOL.: Abt 5 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N ₂ O ₅).....	0.003%
Phosphate (P ₂ O ₅).....	0.004%
Sulphate (SO ₃).....	0.010%
Alumina & Silica (Al ₂ O ₃ , SiO ₂)	0.025%
Ammonium Compds (NH ₃)...	0.000%
Calcium & Magnesium (Ca, Mg)	0.020%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%
Potassium.....	Trace

USES: As of the Anhydrous Reagent.

do. Merck—C.P.—Dried

Approx.: Na₂CO₃ + H₂O = 124.02.—Wh., hygroscopic powd.—SOL.: Abt 5 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N ₂ O ₅).....	0.005%
Phosphate (P ₂ O ₅).....	0.002%
Silicate (SiO ₂).....	Trace
Sulphate (SO ₃).....	0.008%
Ammonium Comp'ds (NH ₃)...	0.000%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.013%
Heavy Metals.....	0.000%
Magnesium (Mg).....	0.01%
Potassium (K).....	Trace
Water.....	15.000%

USES: As of the C.P. Cryst., but more advantageous to use because it is not so likely to melt.

do. Monohydrated Merck—U.S.P. X

Na₂CO₃ + H₂O = 124.02.—Wh., odorl. gran., or cryst. powd.; strongly alk. taste; effloresc. in warm, dry air.—SOL.: 3 W., 7 G. at 25° C., 1.8 boil. W., insol. A.—ACTION: Antacid.—USES: Sour stomach, gout, uric-acid diathesis, skin dis., &c.; seldom used internally.—*Extern.*, in mouth washes, injections, nasal douches, & gargles (abt 0.5% solut.).—DOSE: 0.2–0.5 Gm. (3–8 grn.) in W.; aver. dose 0.25 Gm. (4 grn.).—ANTID.: Acetic acid or lemon juice in small quant. at a time, olive oil, &c.—INCOMPAT.: Acids.

do. Merck—Purified—Cryst. or Dried Powd.**do. Merck—Technical**

Sal Soda; Washing Soda; Trona.—USES: *Techn.*, manuf. glass, soap, ultramarine, dyes, & o. Na salts; detergent; bleaching linen

& cotton; washing wool; dyeing & printing fabrics; paper making; prevent. boiler scale; in metallurgy; laundering; general cleanser; finishing leather; preventing timber mold; softening water; manuf. varnish & paint removers.—In VETER. MED. *extern.* in chron. dis. of skin, scabies, eczema, etc.; *intern.*, in peritonitis, etc. *Cattle*, 10–30 Gm. (2½–8 dr.); *horses*, 1–15 Gm. (¼–4 dr.); *sheep & goats*, 2–5 Gm. (30–75 grn.); *pigs*, 1–3 Gm. (15–45 grn.); *dogs*, 0.2–1 Gm. (3–15 grn.).

SODIUM CARBONATE, EXSICCATED—see Sodium Carbonate, Anhydrous

Sodium Carminate

C₁₁H₁₀O₆Na₂ = 284.14.—Red-violet powd.—SOL.: W.—USES: Microscopy.

Sodium Chlorate Merck—C.P.—Cryst.

NaClO₃ = 106.46.—Colorl. cryst.—SOL.: Abt 1 W., sltly A., more so in G.

MAXIMUM OF IMPURITIES

Bromate (Br ₂ O ₅).....	0.080%
Chloride (Cl).....	0.005%
Nitrate (N ₂ O ₅).....	0.002%
Sulphate (SO ₃).....	0.005%
Heavy Metals.....	0.000%

USES: As an oxidizer, just like the potassium chlorate.

do. Merck—U.S.P. VIII—Cryst.

Colorl. odorl. cryst.; cooling, saline taste.—SOL.: Abt 1 W., & 100 A., at 25° C., 40 boil. A., 0.5 boil. W., & 5 G.—ACTION: Deodorant; Antisep.; Alter.—USES: *Intern.*, diphth., tonsillitis, scarlat., pharyngeal & laryngeal inflam., stomatitis, urethritis, mercurial pytalism, hemorrhoids, &c.; also gastric cancer.—*Extern.*, as collyrium or wash (1–5:100), gargle or inj.—DOSE: 0.12–0.6 Gm. (2–10 grn.); aver. dose, 0.25 Gm. (4 grn.).—INCOMP.: Organic matters, easily oxidizable substcs.—CAUT.: When triturated w. S or P, or any combustible substce, a severe explosion may occur.

do. Merck—Technical

USES: Techn. as oxidizer; explosives & matches; dyeing & printing fabrics; tanning & finishing leather; manuf. aniline black.

Sodium Chloride Merck—Reagent

NaCl = 58.46.—Wh. colorl. cryst., or granules.—SOL.: Abt 3 W.

MAXIMUM OF IMPURITIES

Bromide (Br).....	0.014%
Iodide (I).....	0.012%
Nitrogen Comp'ds (NH ₃ , Nitrate, as N).....	0.001%
Phosphate (P ₂ O ₅).....	0.000%
Sulphate (SO ₃).....	0.001%
Barium (Ba).....	0.001%
Calcium & Magnesium (Ca, Mg).....	0.005%
Iron (Fe).....	0.0005%
Other Heavy Metals.....	0.000%
Potassium (K).....	0.180%

USES: Detect'g & determ'g Ag by gravimetric & volumetric means; detect'g food colors; in metallurgy of Ag, Au, & Hg.

Sodium Chloride Merck—C.P.

NaCl = 58.46.—Wh. gran. or powd.—SOL.:
Abt. 3 W.

MAXIMUM OF IMPURITIES

Bromide (Br).....	0.014%
Iodide (I).....	0.012%
Phosphate (P ₂ O ₅).....	0.005%
Sulphate (SO ₃).....	0.005%
Calcium & Magnesium (Ca, Mg).....	0.010%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Gran. or Powd.

Table, or Common, Salt.—NaCl = 58.46.—Colorl., gran. or wh. powd.; odorl., & pure saline taste.—SOL.: 2.8 W., 10 G., at 25° C., 2.7 boil. W., & sltly A., U.S.P.—ACTION: Antisep.; Stomachic; Tonic; Cath.; Emetic.—USES: *Intern.*, hemoptysis.—*Extern.*, bruises & sprains; in eye washes, 5% solut.; in baths 1–10 kilos (abt 2–20 lbs.) f. a full bath; in sprays f. inhalat. in chron. catarrh of larynx & pharynx, 2.6 Gm. (40 grn.) ea. of NaCl & NaHCO₃ to 300 cc. (10 fl. oz.) W. In chron. coryza, 1%–2% solut. f. snuffing up nose; also as wash after inj. AgNO₃.—DOSE: 0.6–4–15 Gm. (10–60–240 grn.); aver. dose as emetic, 15 Gm. (4 dr.).—Physiological Salt Solut. f. subcut. inj. consists of NaCl 0.6 Gm. (10 grn.), Na₂CO₃ 1 Gm. (15 grn.), & W. 100 cc. (3½ fl. oz.). In infantile summer diar., 6–8 cc. (90–120 M) solut. are inj. at one dose, or 30–40 cc. (1–1½ fl. oz.) p. day. For hypodermoclysis in acute anemia, cholera, & dysentery in children, a solut. is made of 0.36 Gm. (6 grn.) NaCl, 0.3 Gm. (5 grn.) Na₂CO₃, & 100 cc. (3½ fl. oz.) W., up to 1500 cc. (50 fl. oz.), warmed to 40° C. & inject.

do. —Technical

Rock Salt; Sea Salt.—USES: *Techn.*, standardizing & salting out dyes; purifying fats & oils; in freezing mixtures; manuf. HCl, Cl, Na₂CO₃, Na₂SO₄, NaOH, glass; preserv'g foods (fish, meat, pickles, etc.); salting out soaps; dyeing & printing fabrics; glazing pottery; curing hides; metallurgy of Zn & o metals.

SODIUM CHLORIRIDATE—see Iridium & Sodium Chloride

SODIUM CHLOROPLATINATE—see Platinum & Sodium Chloride, Platinic

SODIUM CHLOROPLATINITE—see Platinum & Sodium Chloride, Platinous

Sodium Choleate Merck—Powd.—Soluble Extract Ox Gall

Sodium Choleinate; Dried Purified Ox Gall.—Cont's chiefly sod. salts of glycocholic & taurocholic acids; also cholesterolin, choline, & lecithin.—Yellowish-wh. powd.; eas. becomes moist on expos. to air.—SOL.: W., A.—ACTION: Tonic; Lax.; Cholag.—USES: Deficient biliary secret., chronic constip., biliary colic, &c.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

SODIUM CHOLEINATE—see Sodium Choleate

Sodium Chromate Merck—C.P.—Neutral

Na₂CrO₄ + 10H₂O = 342.16.—Yellow, hygros. cryst.—SOL.: less than 1 W.; sltly A.

MAXIMUM OF IMPURITIES

Acidity (as H ₂ CrO ₄).....	0.180%
Alkalinity (NaOH).....	0.120%
Chloride (Cl).....	0.030%
Sulphate (SO ₃).....	0.050%
Calcium (Ca).....	0.010%

USES: As of Potass. Chromate C.P.

do. Merck—Dried Powd.

USES: *Techn.*, as mordant in dyeing & printing textiles; manuf. inks, & chrome pigments; tanning leather.

Sodium Cinnamate Merck—Medicinal

Sodium Cinnamate.—C₆H₅CH:CH.CO₂Na = 170.10.—Wh., cryst. powd.—SOL.: 11 W., more eas. in W. cont. chlorides or nitrates, 20 boil. W.; G.; 160 A. (90%), B.P.C.—ACTION: Antisept.; Antitubercular.—USES: *Subcut.*, in inoperable cancer; *intraven.*, in tuberc.—DOSE: 0.01 Gm. (¼ grn.) grad. incr. to 0.06 Gm. (1 grn.); 0.12–0.3 Gm. (2–5 grn.), B.P.C.; *parenchymatously* or *intraven.*, 0.2–1.3 cc. (3–20 M) 5% solut. in physiol. salt solut., sterilized bef. use, 3 times per week; *subcut.* or *intramusc.*, 0.1 Gm. (1½ grn.) in 10 cc. (150 M) norm. saline solut., B.P.C.; or also 0.12–1 cc. (2–15 M) of a 5% solut. in 0.8% NaCl solut. 3 t.p. week, & likewise in surgical tuberc.; in cancer, 2 cc. (30 M) 10% solut. subcut.—*Extern.*, in acute & subacute keratitis, parenchym. instil. of a 1% aq. solut.; in choroiditis, subconjunctival inject. of a 1% solut.

SODIUM CINNAMYLATE—see Sodium Cinnamate

Sodium Citrate Merck—C.P.

Na₃C₆H₅O₇ + 2H₂O = 294.10.—Colorl. cryst.—SOL.: Abt 2 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.010%
Arsenic (As).....	0.00075%
Heavy Metals.....	0.000%

USES: Detect. albumin (Dufau); also detect. & determ. sugar in urine (Benedict; Rosenthaler).

do. Merck—U.S.P. X—Gran., Powd., or Impalp. Powd.

Na₃C₆H₅O₇ + 2H₂O = 294.10.—Wh., odorl., cryst., or gran. powd.—SOL.: 1.3 W. at 25° C., 0.6 boil. W., & insol. A., U.S.P.—ACTION: Diur.; Antipyr.; Antilithic; Refrig.—USES: Gout, chronic nephritis, cystitis, rheum., fevers, & in malaria; also in pneumonia, acidosis, diabetes, dyspep., & vomit. of gastric catarrh. Added to milk f. infants to render the milk easily digestible.—*Techn.*, in photography.—DOSE: 0.6–4 Gm. (10–60 grn.) sev'l t.p.d.; aver. dose, 1 Gm. (15 grn.); in *diabetes*, 5–10 Gm. (75–150 grn.) p.d.; in *pneumonia*, full doses; in *acidosis*, up to 50 Gm. (12 dr.) p. day; in *dyspep.*, 1.3 Gm. (20 grn.) ev. 4 min. till relief. As an addit. to children's milk to render it more digestible, 0.06 Gm. (1 grn.) added to 30 cc. (1 fl. oz.) of milk.—In *hemorrhage*, 6 Gm. (1½ dr.) in 30% solut. intravenously v. slowly (abt 10 min.) into vein at elbow.

Sodium Citrate Merck—U.S.P. VIII—Cryst. or Gran.

$\text{Na}_3\text{C}_6\text{H}_5\text{O}_7 + 5\frac{1}{2}\text{H}_2\text{O} = 357.16$.—Wh. cryst. or gran.—**SOL.**: 1.1 W. at 25°C ., 0.4 boil. W.; sltly A.—**ACTION, USES, & DOSES**: As of the preced'g.—**CAUT.**: Keep well stoppered.

do. —Acid

Monosodium Citrate; Monobasic Sodium Citrate.— $\text{NaC}_6\text{H}_7\text{O}_7 + \text{H}_2\text{O} = 232.10$.—Wh. powd.—**SOL.**: W.—**ACTION**: Diur.; Antipyr.—**USES**: Fevers.—**DOSE**: 0.3–3.3 Gm. (5–50 grn.).

SODIUM CITRATE MONOBASIC—see Sodium Citrate, Acid

Sodium Citrobenzoate

Mixt. sod. benzoate & sod. citrate.—Wh. powd.—**SOL.**: v. eas. W.—**ACTION**: Diur.; Antisep.; Antilitic.—**USES**: Asthma, bronch., cystitis, cysto-lithiasis, & dis. of gen.-urin. org.—**DOSE**: 0.5–1 Gm. (8–15 grn.) 2–3 t.p.d.

SODIUM COERULEINSULPHATE—see Sodium Indigotindisulphonate

Sodium Copaivate

Yellowish powd.—**SOL.**: W.—**ACTION**: Antisep.; Diur.; is pleasanter to take than copaiva balsam.—**USES**: Gonorr., gleet, bronchorrhea, & dis. of muc. memb.—**DOSE**: 0.6–2 Gm. (10–30 grn.) sev'l t.p.d.

Sodium m-Cresotate

Sodium Metacresotate.— $\text{C}_6\text{H}_3(\text{COONa})(\text{OH})(\text{CH}_3)[1:2:4] = 174.10$.—Wh. to reddish-wh. cryst. powd.—**SOL.**: W.—**USES**: Rheumat. fever.—**DOSE**: As of sod. salicylate.

Sodium o-Cresotate

$\text{C}_6\text{H}_3(\text{COONa})(\text{OH})(\text{CH}_3)[1:2:3] = 174.10$.—Wh. to reddish-wh. powd., or gran. mass.—**SOL.**: W.—**USES**: Rheumatic fever.—**DOSE**: As of sod. salicylate.

Sodium p-Cresotate

$\text{C}_6\text{H}_3(\text{COONa})(\text{OH})(\text{CH}_3)[1:2:5] = 174.10$.—Wh. to reddish-wh. microcryst. powd.; bitter taste.—**SOL.**: W.—**ACTION**: Antipyr.; Antisep.; Analg.—**USES**: Acute gastric catarrh, acute rheum., pneum., typhoid fever; also rheumat. fever. Acts like sod. salicylate, but though weaker than this, is said to be free fr. the usual byeffects of the salicylate.—**DOSE**: 0.06–1.3 Gm. (1–20 grn.); 0.36–4.6 Gm. (6–70 grn.) p. day, accord. to age, in aqu. solut.

Sodium Cyanide Merck—Reagent

$\text{NaCN} = 49.01$.—Wh., deliques. granules or lumps.—**SOL.**: Readily in W., & sltly in A.

MAXIMUM OF IMPURITIES

Carbonate	Abt 1%
Chloride (Cl)	0.010%
Ferrocyanide ($\text{Fe}''[\text{CN}]_6$)	0.005%
Sulphate (SO_3)	0.005%
Sulphide (S)	0.003%
Sulphocyanate (CNS)	0.015%

USES: As reducer in determ'g Sb, Sn, As, Ni, Co, & Cu; separ'g Bi fr. Cu, & Ni fr. Co;

reagent f. Cu, Co, Hg, thiosulphates, glucose, resorcin, picric & gallic acids, sulphonal, santonin, aloes, & CO in blood; also uric acid in blood (Folin), testing blood by Benedict's method; also in electrolysis.

Sodium Cyanide—C.P.

$\text{NaCN} = 49.01$.—Wh., deliq., cryst. powd. or amorph. pieces.—**SOL.**: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.020%
Ferrocyanide ($\text{Fe}''[\text{CN}]_6$)	0.010%
Sulphate (SO_3)	0.010%
Sulphide (S)	0.005%
Sulphocyanate (CNS)	0.020%

USES: *Chem.*, As of the Reagent, above.—*Medic.*, as sedat. in spasmodic cough, & nervous irritabil.—**DOSE**: 0.003–0.01 Gm. ($\frac{1}{20}$ – $\frac{1}{5}$ grn.); 0.02 Gm. ($\frac{1}{5}$ grn.) p.d.—**ANTID.**: Emetics, stomach siphon, ferric & ferrous sulphates mixed, chlorine & amm. inhal., &c.—**CAUT.**: Very poisonous!

do. Merck—96%–98%—Balls, or Gran.

USES: Techn., extracting Au & Ag fr. ores; electroplating baths; fumigating citrus & other fruits & raw cotton; insecticide; fumigating ships, railway cars, grain elevators, warehouses, etc.

SODIUM DIAMINODIHYDROXYARSENOBENZENE—see Arsphenamine Sodium

SODIUM DIANISIDINDISAZOBI-1-NAPHTHOLSULPHONATE—see Benzoazurine G

SODIUM DIBENZYL PHOSPHATE—see Benzyphos

SODIUM DIBROMDINITROFLUORESCEINATE—see Methyleosine Red

Sodium Dichromate Merck—C.P.—Cryst.

Sodium Bichromate.— $\text{Na}_2\text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O} = 298.03$.—Red, hygrosc., cryst. lumps.—**SOL.**: Less than 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.020%
Sulphate (SO_3)	0.050%
Aluminum (Al)	0.020%
Calcium (Ca)	0.010%

USES: *Chem.*, as oxidizer inst. of potass. dichromate, but is not suitable as a standard f. volumetric soluts.—*Medic.*, as Antisep.; Corros.; Astring.; Alter.; *intern.*, in syph; *extern.*, sweat. feet, tuberc. elevations, syph. veget., & warts.—**DOSE**: 0.005–0.01–0.02 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ – $\frac{1}{3}$ grn.).—**APPL.**: 5% solut. f. sweat. feet; 10% solut. caustic.

do. Merck — Technically — Cryst. or Gran.

USES: To harden anatomical specimens; as oxidizer; tanning leather; in electric batteries & battery fluids; bleaching fats, oils, resins, sponges; manuf. CrO_3 , Cr salts, & chrome pigments; hardening gelatin; electroengraving copper; in explosives; refining petroleum; manuf. dyes; replaces $\text{K}_2\text{Cr}_2\text{O}_7$ v. satisfactorily

f. most technical purposes; used also in disinfection (16 fl. oz. formaldehyde, $1\frac{1}{2}$ fl. oz. H_2SO_4 , & pour mixt. on 10 oz. sod. dichrom.); mordant in dyeing.

SODIUM DIETHYLBARBITURATE—see Barbitalsodium; Veronal-Sodium

SODIUM DIHYDROGEN PHOSPHATE—see Sodium Phosphate, Monobasic

SODIUM DIHODOPARAPHENOLSULPHONATE—see Sozoiodole-Sodium

Sodium Diiodosalicylate

$2\text{NaC}_7\text{H}_3\text{I}_2\text{O}_3 + 5\text{H}_2\text{O} = 913.88$.—Wh. leaflets or need.—SOL.: 50 W.—ACTION: Analg.; Antipyret.; Antisep.—USES: *Extern.*, parasitic skin dis.—DOSE: In rheumat., 0.2–0.36 Gm. (3–6 grn.) 1–4 t.p.d.

SODIUM DIMETHYLARSENATE—see Sodium Cacodylate

SODIUM DINITROALPHANAPHTHOLSULPHONATE—see Naphthol Yellow S

SODIUM DINITRODIOXYQUINONATE—see Sodium Nitranilate

SODIUM DIOXIDE—see Sodium Peroxide

SODIUM DITHIONATE—see Sodium Hyposulphate

Sodium Divanadate

Sodium Tetravanadate.— $\text{Na}_2\text{V}_4\text{O}_{11} + 9\text{H}_2\text{O} = 588.14$.—Orange-red cryst.—SOL.: W.; even v. dil. solut. (1:200,000) is yellow.—USES: Techn., in manuf. inks & aniline black.

SODIUM ETHOXIDE—see Sodium Ethylate

Sodium Ethylate Merck—Dry

Sodium Ethoxide; Caustic Alcohol.— $\text{C}_2\text{H}_5\text{ONa} = 68.05$.—Fr. absol. A., & metal. Na.—Wh. or yellowish, hygro. powd., becoming darker on keeping.—SOL.: W. & in A. w. decomp'n. B.P.C.—ACTION: Escharotic.—USES: In 1:3 solut. in absol. A., on warts, nevi, &c. The A. liberated by its decomp. coagulates the albuminous bodies exposed, & thus mitigates action.—Apply w. glass rod; chlorof. arrests action.

do. —Liquid—B.P. 1898

Cont. 18% of solid ethylate, $\text{NaC}_2\text{H}_5\text{O}$, in absol. A.—Colorl. syrupy liq.; turns brown on keep.—SP. GR.: 0.867 at 15.5°C .—ACTION: Escharotic.—USES: As of preced'g.

do. Richardson

$\text{C}_2\text{H}_5\text{ONa} \cdot 2\text{C}_2\text{H}_5\text{OH} = 160.17$.—Fr. absolute ethyl A. at 10°C . by sodium.—Cont. abt 35% $\text{C}_2\text{H}_5\text{ONa}$.—Whitish, deliq., cryst. powd.—SOL.: W. (w. decomp.); A.—ACTION: Caustic, Escharotic.—USES: *Extern.*, destroy warts, nasal polypi, & nevi; also in ozena, ringworm.—1:3 solut. in absol. A. carefully applied w. glass rod. When a crust has formed, remove & apply anew; chlorof. checks the caustic action. Also employed in solut. of 1 in 4 of olive oil in psoriasis & o. skin dis.

Sodium Ethylsulphate

Sodium Sulphovinate.— $\text{NaC}_2\text{H}_5\text{SO}_4 + \text{H}_2\text{O} = 166.13$.—Wh., v. hygro. cryst.—SOL.: 0.7 W., A.—ACTION: Cathartic.—USES: Mild, pleas.

remedy f. constip.—DOSE: 20–30 Gm. (5–8 dr.); children, half these doses.

Sodium Ferricyanide

$\text{Na}_3\text{Fe}(\text{CN})_6 + \text{H}_2\text{O} = 298.93$.—Ruby-red, deliq., unstable cryst.—SOL.: 5.3 cold, 1.2 boil., W.—USES: Dyeing, manuf. pigments, blue print paper.

Sodium Ferrocyanide Merck—Pure

$\text{Na}_4\text{Fe}(\text{CN})_6 + 12\text{H}_2\text{O} = 520.11$.—Yellow, monocl. prisms.—SOL.: v. eas. (3.5) W.—USES: Chem.; also w. "hypo" in photogr. (Farmer's reducer); *techn.*, in dyeing inst. of $\text{K}_3\text{Fe}(\text{CN})_6$.

Sodium Fluobenzoate

Sodium Parafluobenzoate.— $\text{C}_6\text{H}_4\text{F.COONa} = 162.07$.—Wh., cryst. powd.—SOL.: W.—ACTION: Antisep.—USES: Lupus & o. tuberculous processes; inst. of NaF, bec. free fr. injurious action of latter on stomach.—DOSE: 0.5 Gm. (8 grn.) 3 t.p.d.

Sodium Fluoride Merck—C.P.

NaF = 42.00.—Fr. sod. silicofluoride & Na_2CO_3 by fusion.—Clear, lustr. cryst., or wh. powd.—SOL.: 25 W., insol. A.

MAXIMUM OF IMPURITIES

Alkalinity (as Na_2CO_3)	0.10%
Chloride (Cl)	0.010%
Hydrofluoric Acid	0.20%
Sulphate (SO_3)	0.030%
Iron (Fe)	0.003%
Other Heavy Metals	Trace

USES: *Chem.*, as test f. blood (Filomusi-Guelfi).—*Medic.*, as Antispasm.; Antiper.; Antisep.; Preservative.—*Intern.*, epilepsy, malaria, ague, tuberc., skin dis.—*Extern.*, antisep. dress. f. wounds & injuries & as wash or on bandages f. erythema, impetigo, prurigo, etc.; does not coagulate albumin. Does not attack nickel-plated instruments.—*Techn.*, preservative, & to prevent lactic & butyric fermentation in manuf. alcohol.—DOSE: 0.005–0.03 Gm. $\frac{1}{12}$ – $\frac{1}{2}$ grn.) in solut. w. sod. bicarb. *In-traven.* in tuberc., 1–2 cc. (15–30 M) of a 3.5% sterile solut.; or *subcut.* in 1:200 solut.—APPL.: For wounds, 0.5–10:1,000 solut.; in dacryocystitis, 0.5% solut.; as mouthwash, & inject. in vaginitis, 0.5%–1% solut.; in cystitis, irrig. w. 0.25%–0.5% solut. ev. o. day; in lupus, in 10% plaster.

do. Merck—Purified, 90%–95% NaF

Antiferment.; Antisep.—USES: In distilleries, to prevent formation of injurious quant. of lactic & butyric acids during ferment. of the mash. Largely used in manuf. yeast by Efronp's process. Also f. purifying vats used in fermentation industries, & f. disinfecting apparatus used in distilleries; also efficient for killing ants, roaches, bugs, & mites, & lice on poultry, as also fleas on dogs; preserv. wood, pastes & mucilages.

do. —Purified, 90%–95%—Technical

ACTION & USES: As of the preced'g.

SODIUM FLUOSILICATE—see Sodium Silicofluoride

Sodium Formate Merck—C.P.

$\text{NaCHO}_2 = 68.01$.—Wh., gran., or cryst. powd.—SOL.: Abt 2 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.005%
Calcium (Ca).....	0.005%
Heavy Metals.....	0.000%

USES: Powerful reducer; test f. As & P (Vournasos).

do. Merck—Dry, Gran. or Powd.

DESCRIPT.: As preced'g.—SOL.: 2 W., G.—ACTION: Antisep., Diur.; Tonic; Antituberc.—USES: Intern., diphth.; pneum.; diarrh.; Bright's dis.—*Subcut.*, in surgical tuberc.—*Extern.*, ocular fatigue by instill.—*Techn.*, dyeing & printing textiles.—DOSE: 0.01–0.2 Gm. ($\frac{1}{2}$ –3 grn.) in solut., ev. 8 to 10 days; (accord. to B.P.C., 0.3–1.3 Gm [5–20 grn.]); in *pneumon.*, 0.08–0.25 Gm. ($1\frac{1}{2}$ –4 grn.) ev. 2 hrs in aqu. solut.; in *diphth.*, 0.3–1.3 cc. (5–20 M) of a 25% solut.; as a *diur.*, 3 Gm. (45 grn.) p. day.—*Subcut.* in surgic. tuberc., 0.2 Gm. (3 grn.) 2 t.p.d.

Sodium Glycerophosphate Merck—N.F.V—Cryst. or Powd.

$\text{Na}_2\text{C}_3\text{H}_5(\text{OH})_2\text{PO}_4 + 5\frac{1}{2}\text{H}_2\text{O} = 315.19$.—Wh. odorl. plates or scales, or powd.—SOL.: v. eas. W.; insol. A.—Decomp. when heated above 130°C .—USES: Deficient nerve nutrition, neurasth., senile debil., tabes, diab., scrofula, rachitis, Addison's dis., phosphaturia, influenza, neuralg., lumbago, hepatic atrophy, constip., phosphaturia, in convalesc. fr. serious dis., & nutritional disturbances of the nerves.—DOSE: 0.25–0.6 Gm. (4–10 grn.) 3–4 t.p.d., & up to 10 Gm. (150 grn.) p. day; in goiter, 1.3 Gm. (20 grn.) 3–4 t.p.d.; *subcut.* or *intraven.*, 0.2–0.25 Gm. (3–4 grn.) daily, in 1:5 physiolog. solut. NaCl.—CAUT.: Keep in well closed containers.

do. —75% Solution

Colorl. or sltly yellowish viscid liquid.—Misc.: W.; deposits a cryst. salt in the cold, but clears up on warming.—USES & DOSES: As of the preced'g, but using cc. or M instead of Gm. or grn.

do. Merck—50% Solution—U.S.P. IX

USES, &c.: As preced.—DOSE: Aver., 0.35 cc. (6 M).

Sodium Glycocholate Merck

Found in bile of man & of herbivora, & obt'd fr. latter.—Cont. some taurocholate.—Yellowish powd.—SOL.: W., A.—ACTION: Cholag.—USES: Cholelithiasis, deficient biliary secret., constip., tuberc.; biliary colic, diabetes, arteriosclerosis, malaria, &c.; capable of increas. flow of bile 100%.—*Techn.*, test f. syphilis (Hermann-Perutz; Loeper; Porges).—DOSE: 0.2–0.3 Gm. (3–5 grn.) 3 t.p.d.—Up to 4–5 Gm. (60–75 grn.) p.d., may be given.—Acts also as a chemical vaccine f. poison. by snake venom.

Sodium Gynocardate

Yellowish powd.—SOL.: W., A.—ACTION: Antisep.; Alter.—USES: Leprosy.—DOSE: 0.3–1 Gm. (5–15 grn.) 2 t.p.d. in gelat. caps.; *intravenously* 0.006–0.05 Gm. ($\frac{1}{10}$ – $\frac{3}{4}$ grn.) in 2%–3% steril. solut. w. 0.5% phenol.

Sodium Hippurate Merck

$\text{C}_6\text{H}_5\text{CO}(\text{NH}.\text{CH}_2\text{COONa}) = 201.12$.—Wh. powd.—SOL.: Eas. W., A.—USES: As of o. hippurates in dis. due to uric acid diathesis (e.g., gout); also to reduce blood pressure in arteriosclerosis.—DOSE: 0.6 Gm. (10 grn.); 0.3–2 Gm. (5–30 grn.), B.P.C.

SODIUM HYDRATE—see Sodium Hydroxide

SODIUM HYDROGEN CARBONATE—see Sodium Bicarbonate

SODIUM HYDROPYROANTIMONATE—see Sodium Antimonate

SODIUM HYDROSULPHATE } see Sodium Sulphy-
SODIUM HYDROSULPHIDE } drate

Sodium Hydrosulphite

$\text{Na}_2\text{S}_2\text{O}_4 = 174.12$.—Wh. cryst. powd.; faint SO_2 odor; oxidizes in moist air w. spontaneous rise in temp.—SOL.: Eas. W., dil. A.—USES: As reducing agent partic. in volumetr. anal.; determ. O diss. in W. (Schützenberger-Gerardin; Schützenberger-Risler); determ. indigo (Müller); determ. tannin (Specht-Lorenz); also as test f. aniline dyes (Grandmougin), O (Franzen), CO-blood (Michel), anthraquinone (Schützenberger), & blood (Stoll).—*Techn.*, As reducing agent partic. in dyeing w. indigo & vat dyes; clarifying sugar, molasses, edible oils, soaps; bleaching straw; removing dyes fr. dyed fabrics.

Sodium Hydroxide Merck—Reagent—Pure—Sticks

$\text{NaOH} = 40.01$.—Wh., hygroscop. sticks.—SOL.: Less than 1 W., readily in A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.007%
Nitrogen (Nitrate, Nitrite, NH_3 , as N).....	0.001%
Phosphate (P_2O_5).....	0.003%
Silicate (SiO_2).....	0.010%
Sulphate (SO_3).....	0.005%
Aluminum (Al).....	0.010%
Calcium (Ca).....	0.010%
Iron (Fe).....	0.002%
Other Heavy Metals (as Ag)...	0.002%
Sodium Carbonate (Na_2CO_3)..	2.0%

USES: Neutralizer; alkaliizer; precipitant; prepar'g volumetric soluts; absorbing CO_2 in gas analysis; prepar'g soda-lime.—CAUT.: Keep well stoppered.

do. Merck—Reagent—From Sodium

Wh., hygrosc. fragments.—SOL.: Less than 1 W., readily in A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrogen (Nitrate, Nitrite, NH ₃ , etc. as N).....	0.0014%
Phosphate (P ₂ O ₅).....	0.003%
Silicate (SiO ₂).....	0.020%
Sulphate (SO ₃).....	0.004%
Aluminum (Al).....	0.001%
Calcium (Ca).....	0.010%
Heavy Metals.....	0.000%
Sodium Carbonate (Na ₂ CO ₃)..	3.000%

USES: Neutralizer & precipitant; absorb. CO₂ in gas analysis; prepar'g volumetric soluts.

Sodium Hydroxide Merck—C.P.—Pure—Sticks

Sodium Hydrate; Caustic Soda; "Soda."—NaOH = 40.01.—Wh., hygrosc. sticks.—SOL.: Less than 1 W.; eas. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Nitrogen (Nitrate, Nitrite, NH ₃ as N).....	0.001%
Phosphate (P ₂ O ₅).....	0.004%
Silicate (SiO ₂).....	0.020%
Sulphate (SO ₃).....	0.010%
Aluminum (Al).....	0.020%
Calcium (Ca).....	0.020%
Heavy Metals (as Ag).....	0.002%
Sodium Carbonate (Na ₂ CO ₃)..	2.5%

USES: As of the Reagent, above.

do. Merck—U.S.P. X, Purified—Sticks

Wh., or alm. wh., deliq. sticks; acid, caustic taste; cryst. fracture.—SOL.: 0.9 W. at 25° C., abt 0.3 boil. W. & v. sol. A., U.S.P.—ACTION: Caustic (as London Paste = eq. parts lime & NaOH); Antacid.—USES: Pharm. & chem.—DOSE: 0.03–0.06 Gm. (½–1 grn.) freely diluted.—ANTID.: *Extern.*, wash w. plenty water then w. vinegar; *intern.*, vinegar or juice of lemon, grapefruit, or orange, copiously, followed by olive oil; *eyes*, wash w. 5% solut. boric acid.—CAUT.: Keep well stoppered.

do. Merck—Solut.—U.S.P. X

Solut. Soda; Soda Lye.—Clear, colorl. liq.; v. acid, caustic taste; alkal. react.; cont. 4.5%–5.5% NaOH.—SOL.: W., A.—SP. GR.: Abt 1.056 at 25° C., U.S.P.; 1.059 at 15° C.—ACTION: Antacid; Diur.; Antilithic.—USES: Scrof., lepra, psoriasis, & o. skin dis.; lithiasis, cystitis, urethritis, & o. dis. of gen.-urin. org.; also chem. as neutralizer, alkalizer, etc.—DOSE: 0.6–1.3 cc. (10–20 M); aver. dose, 1 cc. (15 M).—ANTID.: As preced'g.

do. Merck—Technical—Gran.

USES: Inst. of KOH because cheaper; cleaning comp'ds; refining petroleum & o. mineral & also vegetable oils; manuf. leather, soap, reclaimed rubber, inks, wood pulp, aniline dyes, intermediates, perfumery; mercerizing cotton; bleaching & dyeing fabrics; in process engraving; softening water; working up distillation

products of turf & brown coal; manuf. water glass, mordants f. wood, &c.

do. —Techn.—Solution—31% NaOH

Clear, sltly yellow-tinged liq.—SP. GR.: 1.34 = 37 Bé. at 15° C.—ACTION: Caustic; Antacid; Diur., &c.—USES: Caulerizing, & dil. to proper strength f. same purposes as the 5%.—CAUT.: Keep well stoppered (rubber or paraffin).

**Sodium Hydroxide with Lime Merck—N.F. IV
—Coarse, Fine, or Medium, Granules**

Soda-lime.—Eq. parts NaOH & CaO.—Wh. granules.—USES: Elementary anal. f. quant. determ. of N, & to absorb CO₂.

SODIUM HYDROXYMERCURICTOLUYLATE—see Af-rinol

SODIUM HYPOCHLORITE, SOLUTION—see Solution Soda Chlorinated

Sodium Hypophosphite Merck—N.F. V

NaH₂PO₂ + H₂O = 106.07.—Sm. colorl., deliq. pearly plates, or wh., gran., odorl. powd.; saline taste.—SOL.: 1 W., & freely in G., at 25° C., 0.15 boiling W., freely in boil. A., sltly in absol. A., U.S.P.; also in G.; insol. E.—ACTION: Tonic; Alter.—USES: Phth., scrof., defects in bony structure, & wasting dis.—*Techn.*, as test f. As (Engel-Bernard; Loof; Thiele), & HIO₃ (Loof).—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver. dose, 1 Gm. (15 grn.).—CAUT.: Liable to explode when heated, or when triturated or heated w. nitrates, chlorates, or o. oxidizers. Keep in well-stop. bot.

Sodium Hyposulphate

Sodium Dithionate.—Na₂S₂O₆+2H₂O=242.15.—Large, transp., rhombic prisms; bitter taste.—SOL.: Eas. W.; insol. A.

"SODIUM HYPOSULPHITE"—see Sodium Thio-sulphate

Sodium Indigotindisulphonate Merck

Sodium Indigosulphonate; Indigo Carmine; Soluble Indigo; Indigo Extract; Indigo Disulfo-acid (Food Color No. 692, when "certified"); Sodium Coeruleinsulphate.—C₁₆H₈N₂O₂(SO₃-Na)₂ = 466.28.—Blue powd.—SOL.: Sparingly in W.; alm. insol. A.—USES: *Techn.*, as a dye; in volumetric estim. of HNO₃ or Cl; as indicator (Bernhardt; Kirschnick), test f. glucose (Mulder), & milk (Vaudin).—*Medicinally*, deep & slow intragluteal inj. of 20 cc. (5 fl. dr.) 0.4% solut., or 0.16 Gm. (2½ grn.) suspended in 4 cc. (60 M) artif. serum, as a functional kidney test.—A "technical" product is also mkt'd in the form of a dark, blue-violet "paste," sol. in W. & used as a dye.

Sodium Iodate Merck—C.P.

NaIO₃ = 197.92.—Wh. powd.—SOL.: Abt 20 cold, 3 boil., W.; insol. A.

MAXIMUM OF IMPURITIES

Chlorate (Cl ₂ O ₅).....	0.020%
Sulphate (SO ₃).....	0.010%
Iodide (I).....	0.010%
Free Acid (HIO ₃).....	0.070%

USES: *Chem.*, detecting glucose; also inst. of potass. iodate.—*Medic., intern.*, scrofulous dis., glandular enlargements, bronchial asthma, & *subcut.* in cerebrospinal meningitis, rheum. pains, cholera, acute & chron. neuralgias, neuritis, & gastric hemorrh.—*Extern.*, inst. of iodof. as dust.-powd. (1:8 boric acid) or 5%–10% solut. f. wounds; also in trachoma, torpid ulcers, corneal infiltrations.—DOSE: 0.06–0.03 Gm. (1–5 grn.); 1 Gm. (15 grn.) p. day; in cerebrospinal mening., 0.3 Gm. (5 grn.) 3 t.p.d.; *subcut.* in cholera & in acute & musc. rheum., gland swellings, neuralg., neuritis, hemopt., 0.05–0.2 Gm. ($\frac{3}{4}$ –3 grn.); in cerebrospinal mening., 1–2 cc. (15–30 M) of a 5% solut.—APPL.: As pencil in ulcers, trachoma, & corneal infiltrations, or in 1.5%–3% solut. or 1.5% oint.—*VETER. MED., intern.* infectious processes, tetanus, mastitis, musc. rheumat., enlarged glands, etc., *cows*, 2–3 Gm. (30–45 grn.) *subcut.*; *extern.*, as caustic in trachoma, leucoma, torpid ulcers of the eye, etc.

SODIUM IODFERRIALBUMINATE—see Iodferratin

Sodium Iodide Merck—C.P.

NaI = 149.92.—Wh. deliquescent granules.—SOL.: Less than 1 W.; abt 2 A. or G.

MAXIMUM OF IMPURITIES

Free Alkali (as NaOH)	0.020%
Moisture	5.0%
Chloride (Cl)	0.200%
Iodate (I_2O_5)	0.002%
Nitrate (N_2O_5)	0.002%
Sulphate (SO_3)	0.005%
Barium (Ba)	0.003%
Heavy Metals	0.000%

USES: As of Potass. Iodide, C.P.

do. Merck—U.S.P. X

Wh., cryst. powd., or cubic cryst.—SOL.: Abt 0.55 W., abt 2 A., 1 G., at 25° C., & 0.4 boil. W., U.S.P.; (1 W., 3 A. [90%], at 15.5° C., B.P.).—MELT.: Abt 660° C.—ACTION: Alter.; Antisyphil.; Sialag.—USES: Rheum., pneum., tertiary syph., asthma, chronic bronch., hepatic cirrhosis, angina pectoris, scrofula, &c.; affects the heart far less than KI does.—*Techn.*, in photography, inst. of KI.—DOSES: 0.3–2 Gm. (5–30 grn.); aver. dose 0.3 Gm. (5 grn.) ordinary, & 2 Gm. (30 grn.) as anti-luetic; in angina pectoris, 1–1.6 Gm. (15–25 grn.) p.d. f. a period of 1–2 yrs.—Also used as an inj. into kidney pelvis (25% solut.) f. obt'g pyelograms.—INCOMP.: Alkaloidal salts, chloral hydrate, metallic salts, HgCl, AgNO₃, KClO₃, & acids generally.

SODIUM IRIDICHLORIDE—see Iridium & Sodium Chloride

Sodium Lactate Merck

Aqu. solut. of abt 70% $NaC_3H_5O_3$ = 112.06.—Thick, colorl. or alm. colorl., odorl. liq.—Misc.: W., A.—ACTION: Hypnotic.—USES: Insomnia; diabetes; hysteria; delirium.—DOSE: 0.25–2 Gm. (4–30 grn.); as *hypnotic*, 8–15 Gm. (2–4 dr.), or more, in 60 cc. (2 fl. oz.) W.—Action uncertain.

Sodium "Lactophosphate" Merck

75%–80% of a mixt. eq. parts sod. lactate & anhydr. sod. phosphate.—Wh., thick, odorl. mass.—SOL.: Slowly in W.

Sodium Malate Merck

$Na_2C_4H_4O_5 + \frac{1}{2}H_2O$ = 187.06.—Wh. gran. powd.—SOL.: Eas. W.—USES: *Medic.*, inst. of sod. carbonate.

Sodium Manganate

$Na_2MnO_4 + 10H_2O$ = 345.09.—Green cryst.—SOL.: Cold W.; decomp. by hot W.—MELT.: 17° C.

Sodium Meconate Merck

Wh. to yellowish-wh., cryst. powd.—SOL.: Eas. hot W.; diffc. cold W.; v. diffc. in strong A., but more read. in dil. A.

Sodium Metabisulphite—Cryst.

Sodium Pyrosulphite.— $Na_2S_2O_5 + 7H_2O$ = 316.23.—Colorl. cryst. or wh. powd.—SOL.: Eas. W.—ACTION: Antisept.—USES: *Intern.*, gastric fermentative processes.—*Extern.*, in A.-G. solut. as applic. to larynx.—*Techn.*, in photog.—DOSE: 0.1–0.3 Gm. ($\frac{1}{4}$ –5 grn.).

Sodium Metaborate Merck

$NaBO_2 + 2H_2O$ = 101.93.—Obt. by fusing equiv. molecul. wts of borax & Na_2CO_3 .—Wh. lumps.—SOL.: W.—See also Sodium Borate, Neutral.

SODIUM METACRESOTATE—see Sodium *m*-Cresotate

SODIUM METANTIMONATE—see Sodium Antimonate

Sodium Metaphosphate Merck

$NaPO_3$ = 102.04.—Glassy, colorl., transp. hygrosc. sticks.—SOL. W., w. acid reaction.

SODIUM METARSENITE—see Sodium Arsenite

SODIUM METAVANADATE—see Sodium *m*-Vanadate

SODIUM METHARSENITE—see Sodium Methylarsenate

SODIUM METHYLACETYLAMINOPHENYLARSENATE—see Orsudan

SODIUM METHYLAMINOPHENYLARSINATE—see Kharsin

Sodium Methylarsenate Merck

Sodium Metharsenite or Arsenomethylate; Disodium Methylarsinite; Monomethyldisodium Arsinite.— $CH_3AsO:(NaO)_2 + 6H_2O$ = 292.08.—Wh. cryst. powd.—SOL.: Abt 1 W., sltly A., insol. B., E., petrol. E., & oils.—MELT.: 130°–140° C., B.P.C.—ACTION: Very active arsenical.—USES: Inst. of inorganic arsenical salts & cacodylates in tuberc., emphysema, chron. bronch., asthma, grip, chorea, vomit. of pregnancy, carcinoma, syph., skin dis., & malaria.—DOSE: 0.03–0.12 Gm. ($\frac{1}{4}$ –2 grn.) per day, subcut. or per os, in aqu. solut.; in *malaria*, 0.06–0.1 Gm. (1–1½ grn.) p.d.; in *pseudoleucemia* in children, 0.0003 Gm. ($\frac{1}{800}$ grn.) after dinner to childr. 2 yrs old; 0.0006 Gm. ($\frac{1}{100}$ grn.) 4 yrs old.

Sodium Methyrate

$\text{CH}_3\text{ONa} + 2\text{CH}_3\text{OH} = 118.10$.—Wh. powd.—
SOL.: W. w. decomp.

Sodium Methylsulphate

$\text{NaCH}_3\text{SO}_4 + \text{H}_2\text{O} = 152.11$.—Colorl., hygros. cryst.—SOL.: W., A.—ACTION: Cathart.—
DOSE: 15 Gm. ($\frac{1}{2}$ oz.).

Sodium Molybdate Merck—C.P.

$\text{Na}_2\text{MoO}_4 + 2\text{H}_2\text{O} = 242.03$.—Wh., cryst. powd.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.020%
Sulphate (SO_3).....	0.100%
Phosphate (P_2O_5).....	0.001%
Heavy Metals.....	0.000%

USES: Test f. ether & oils (Dragendorff), alkaloids (Fröhde), oxydimorphine (Hoshida), & vegetable oils Serger).

SODIUM MOLYBDOPHOSPHATE—see Sodium Phosphomolybdate

SODIUM MONOSULPHIDE—see Sodium Sulphide

Sodium α -Naphthalenesulphonate

$\text{C}_{10}\text{H}_7\text{SO}_3\text{Na} = 230.17$.—Wh., odorl. scales.—
SOL.: Eas. W.; insol. A., E.

SODIUM NAPHTHONATE—see Sodium α -Naphthylaminesulphonate

SODIUM-NAPHTHOL—see Microcidin

Sodium α -Naphtholsulphonate

$\text{C}_{10}\text{H}_6\text{OH.SO}_3\text{Na} = 246.17$.—Grayish-wh. powd.—SOL.: W., A.

Sodium β -Naphtholsulphonate

Schäfer's Salt.— $\text{C}_{10}\text{H}_6\text{OH.SO}_3\text{Na}[2:6] = 246.17$.—Brownish powd.—SOL.: Eas. W.; sltly A.—
USES: *Techn.*, manuf. dyes.

Sodium α -Naphthylaminesulphonate

Sodium Naphthionate.— $\text{C}_{10}\text{H}_6\text{NH}_2\text{SO}_3\text{Na}[1:4] + 4\text{H}_2\text{O} = 317.25$.—Sm. wh., monoclin., tabular cryst. which eas. become violet on expos. to light.—SOL.: Eas. W.; diff. A.; the aqu. solut. shows a v. strong bluish-violet fluoresc. even in v. high dilutions.—USES: With betanaphthol as exceed. sensit. test f. HNO_2 (Riegler).

Sodium Nitranilate

Sodium Dinitrodioxyquinonate.— $\text{C}_6(\text{NO}_2)_2[3:6]\text{O}_2(\text{ONa})_2[2:5] = 274.05$.—Reddish-brown powd.—SOL.: W.

Sodium Nitrate Merck—Reagent—Cryst.

$\text{NaNO}_3 = 85.01$.—Colorl. cryst.—SOL.: Little over 1 W.; abt 100 A.—MELT.: Abt 312°C .

MAXIMUM OF IMPURITIES

Chloride & Chlorate (as Cl)....	0.002%
Iodate (I_2O_5).....	0.000%
Nitrite (N_2O_3).....	0.000%
Phosphate (P_2O_5).....	0.000%
Sulphate (SO_3).....	0.003%
Calcium & Magnesium (Ca, Mg)	0.005%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: Oxidizer of organ. matter in detect'g &

determ'g Cl, S, As, etc., in forensic anal.; detect. Cr & Mn; reag. f. bile pigments (Fleischl).

Sodium Nitrate Merck—C.P.—Cryst.

$\text{NaNO}_3 = 85.01$.—Colorl. hygros. cryst. or gran.—SOL.: Little more than 1 W.; abt 100 A.

MAXIMUM OF IMPURITIES

Chloride & Chlorate (as Cl)....	0.005%
Iodate (I_2O_5).....	0.002%
Nitrite (N_2O_3).....	0.000%
Sulphate (SO_3).....	0.008%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. VIII—Cryst., Gran. or Powd.

SOL.: 1.1 W., 100 A. at 25°C ., 0.6 boil. W., & 40 boil. A.—MELT.: 312°C .—ACTION: Refrig.; Antisep.; Diur.; Diaph.—USES: *Intern.*, inflam. condit. of intest., dysentery, &c.; less active than KNO_3 .—*Extern.*, as compress in rheum., adenitis, etc., in 1:3 aqu. solut.—DOSE: 0.3–2 Gm. (5–30 grn.) sev'l t.p.d.; aver. dose 1 Gm. (15 grn.).

do. Merck—Technical

Cubic, Chili, or Soda, Niter or Saltpeter.—USES: *Techn.*, manuf. H_2SO_4 & HNO_3 , nitrites, glass, potash salt-peter, dyes; as fertilizer; oxidizer & flux in metallurgy; pickling meats & preserv'g butter products; improving burning properties of tobacco; manuf. enamels for ceramics; in matches, explosives, & fuses.

Sodium Nitrite Merck—Reagent—Sticks

$\text{NaNO}_2 = 69.01$.—Wh. or sltly yellowish, hygros. sticks.—SOL.: Abt 2 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Calcium (Ca).....	0.002%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Potassium (K).....	0.020%

USES: Organic syntheses; prepar. nitric oxide & solut. sodium-cobaltic nitrite reag. f. K; detect'g indoxyl, albumin, & diastase; also as reag. f. K (Fischer; Bowser; Erdmann), salvarsan (Abelin; Gaebel), acetoacetic acid & nephroresin (Arnold), alkaloids (Arnold-Vitali), indican (Barberio), salicylic acid (Barral), atoxyl (Blumenthal), resorcinol (Bornträger), antipyrine (Bourcet), bilirubin (Brugsch), diazo reaction (Brunner; Clemens; Ehrlich; Friedenwal-Ehrlich; Hefebower; Riegler), abtastol (Covelli), bile pigments (Denigès; Masset; Raphael; Scheel), guanine (Giacomo), citarin (Goldmann), elaidin test (Lidow), phenols (Liebermann), iridol (Nickel), morphine (Radulescu), naphthols (Richardson), iodine (Sandlund), kryofine (Schreiber), indol (Tobey), gurjun balsam (Turner), & phenoxypropandiol (Zirkovic).

Sodium Nitrite Merck—C.P.—Gran.

$\text{NaNO}_2 = 69.01$.—Wh. or sltly yellowish hygrosc., gran.—SOL.: Abt. 2 W. (solut. alkal. to litmus).

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.040%
Calcium (Ca).....	0.010%
Heavy Metals.....	0.003%

USES: As of the Reagent.

do. Merck—C.P.—Sticks

COMPOS. & SOL.: As of the preced'g.—Wh. or sltly yellowish hygrosc. sticks.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.040%
Heavy Metals.....	Trace

USES: As of the Reagent, preced'g.

do. Merck—U.S.P. X—Gran., Powd., or Sticks

$\text{NaNO}_2 = 69.01$.—Wh. or alm. wh. hygrosc. sticks or masses, or colorl. granules or gran. powd.—SOL.: 1.5 W. at 25°C ., v. sol. boil. W., & sltly A., U.S.P.; (50 A. [90%], at 15.5°C ., B.P.C.).—MELT.: Abt. 270°C .—ACTION: Diaph.; Antispasm.; Diur.—USES: Angina pectoris, dropsy, asthma, epilepsy, hemicrania, suppression of urine, tabes dorsalis, & var. dis. of gen.-urin. org.; *subcut.* in syph.—DOSE: 0.06–0.3 Gm. (1–5 grn.) 3–4 t.p.d., given v. cautiously; aver. dose, 0.06 Gm. (1 grn.).—*Subcut.* in tabes dorsalis & syph., 1 cc. (15 M) of a 1% solut. grad. incr. to a 6% solut.—MAX. D.: 0.3 Gm. (5 grn.) single, 1 Gm. (15 grn.) p.d.—ANTID.: Naphthionic acid, sodium sulphanilate.—INCOMP.: Acetanilid, antipyrine, chlorates, chromates, gold chloride, hypophosphites, iodides, mercury salts, permanganates, sulphites, tannic acid, & vegetable astringent decoctions, infusions, or tinctures.—CAUT.: Keep well stoppered.

do. Merck—Technical—Gran.

USES: Manuf. diazo dyes & nitroso comp'ds; dyeing & printing textile fabrics; bleaching flax, linen, & silk.

Sodium *m*-Nitrobenzeneazosalicylate

Alizarin Yellow GG.—USES: As indic.; the stock solut. accord. to Michaelis is made by diss. 0.05 Gm. in 50 cc. A. & 50 cc. W.; PH = 10.2–12.0.

Sodium *p*-Nitrobenzeneazosalicylate

Alizarin Yellow R.— $\text{NO}_2 \cdot \text{C}_6\text{H}_4 \cdot \text{N} : \text{N} \cdot \text{C}_6\text{H}_3 \cdot \text{OH} \cdot \text{COONa} = 309.15$.—USES: As indic. in 0.01% aq. solut.; PH = yellow 10.1–12.1 red.

Sodium Nitroferricyanide Merck—Reagent

Sodium Nitroprusside, or Nitroprussiate.— $\text{Na}_2\text{Fe}(\text{CN})_5\text{NO} + 2\text{H}_2\text{O} = 297.95$.—Ruby-red, transpar. cryst.—SOL.: Abt. 2.5 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.020%
Sulphate (SO_3).....	0.005%

USES: Detect'g H_2S & alkaline sulphides, acids, alkaloids, alkalies, thiosulphates, lactic acid; determ'g quinine; prepar'g copper nitroferricyanide (Heppe's reagent, f. oil turpentin. in volat. oils cont'g O); determ'g intensity of light (Roussin's photometer); also as reagent, f. indole (Antonoff), hydroxylamine (Angeli; Simon), albuminoids & meat diet (Arnold), formaldehyde (Arnold-Mentzel; Rimini), S (Bailey; Béchamp), aldehydes (Béla v. Bitto; Lewin), SO_2 (Bödeker), Zn & inosite (Bradley), acetoacetic acid & pyrrrol (Denigès), thujon (Dupare; Légal), SnO (Fagès), coniine (Gabutti), methyl A. (Haigh), acetone (Imbert; Lange; Légal; le Noble; Rimini; Rothera), *p*-cresol (Jaksch), chloral (Jona), H_2S (Kräl; Scheele), cinchonidine (Kruysey), saccharin (Mahler), cystin (Müller), glucose (Rosenbach), A. (Rusconi), creatinine (Salkowski; Weyl), acetaldehyde, phenylhydrazine, pyruvic acid (Simon), & strophanthin (Unverhau).

Sodium Nitroferricyanide Merck—C.P.

Sodium Nitroprusside, or Nitroprussiate.— $\text{Na}_2\text{Fe}(\text{CN})_5\text{NO} + 2\text{H}_2\text{O} = 297.95$.—Red, transpar., cryst.—SOL.: 2.5 W. at 15°C .

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.040%
Sulphate (SO_3).....	0.020%

USES: As of the Reagent, above.

do. Merck

Red, transpar. cryst.—SOL.: W.—USES: Testing silk f. admixed animal hair; manuf. copper nitroprusside.

SODIUM NITROPRUSSATE } see Sodium Nitro-
SODIUM NITROPRUSSIDE } ferricyanide

Sodium Nucleinate Merck

Fr. nucleic acid fr. yeast.—Fine, sltly yellowish powd.—SOL.: Eas. W., partic. hot; insol. A., E.—ACTION: Tonic; Antitubercular.—USES: Causes high degree of leucocytosis & increases resistance of organism to infections; useful in septic processes, as a prophylactic by inj. f. peritonitis & bef. operations (partic. laparotomies), & as a curative agent in post-operative peritonitis; also in typhoid after intest. hemorrh., puerperal infection, syph., pulm. tuberc., progressive paralysis, multiple sclerosis, rachitis, hepatic cirrhosis, psychoses, scarlet fever, erysip., urticaria, ascites, acute artic. rheum., variola, Parkinson's dis., & hemophilia.—DOSE: *Intern.*, (less freq. so given), *adults*, in hepatic cirrhosis & ascites, 5–15 Gm. (75–240 grn.), which causes pronounced diuresis; *children*, in rachitis, 0.2–0.5 Gm. (3–8 grn.) per day, accord. to child's age, w. 0.1–0.25 Gm. ($1\frac{1}{2}$ –4 grn.) calc. glycerophosph.—*Subcut.* (usual form of admin.) in 2% sterile solut. (in W. or physiol. NaCl solut.), or even up to 10% solut., *adults*, in progress. paralysis, 0.4–2 Gm. (7–30 grn.); in dementia praecox, 2–15 cc. (30–240 M) of a solut. 100 sod. nucleinate, 0.05 arsenic trioxide, 10 sod. cinnamate, in 400 W., & sterilized; as a diagnostic in tuberculosis,

pneumon., & puerperal affections, 2-3 Gm. (30-45 grn.); in typhoid fever, 0.5 Gm. (8 grn.) increased to 1 Gm. (15 grn.) in 10% solut. ev. 4 days; in acute artic. rheumatism 1 cc. (15 M) & in obstinate cases 2-3 cc. (30-45 M) of a 10% solut., ev. 2-3 days; *children*, in tuberc., 0.05 Gm. ($\frac{3}{4}$ grn.) repeated at intervals of sev'l days; in scarlet fever & erysip., 0.1 Gm. ($\frac{1}{2}$ grn.) f. ev. yr of child's age, but not to exceed 1 Gm. (15 grn.), diss. in 30-50 cc. (8-13 fl. dr.) W. & inj. in subdermal cellular tissue of abdomen.

Sodium Oenanthane

Sodium salt of normal heptylic acid.— $\text{CH}_3(\text{CH}_2)_5\text{COONa} = 152.14$.—Wh., cryst. powd. or leaflets.—SOL.: W., A.

SODIUM OLEATE—see Eunatrol

Sodium Oleate Merck—Acid, Mass

Approx. $\text{NaC}_{18}\text{H}_{33}\text{O}_2 + \text{HC}_{18}\text{H}_{33}\text{O}_2 = 586.72$.—Yellow, or brownish yellow, semiliq. mass.—SOL.: W., A.—ACTION: Cholag.; Detergent.—USES: Biliary lithiasis.—DOSE: 0.5-2 Gm. (8-30 grn.) per day.

do. Merck—Neutral, Powd.

$\text{NaC}_{18}\text{H}_{33}\text{O}_2 = 304.35$.—Wh. powd.—SOL.: Abt 10 W., abt 20 A.—ACTION: Cholag.—USES: Biliary colic, & to renew suppressed flow of bile.—DOSE: 0.75-1 Gm. (12-15 grn.) 2-3 t.p.d.—See also Eunatrol.

SODIUM OLEOSULPHONATE—see Thigenol

SODIUM ORTHOAMINO BENZOATE—see Sodium Anthranilate

SODIUM ORTHOPHOSPHATE—see Sodium Phosphate, Tribasic

SODIUM ORTHOTOLUIDINDISAZOBINAPHTHYLAMINESULPHONATE—see Benzopurpurine 4B

SODIUM ORTHOVANADATE—see Sodium *o*-Vanadate

SODIUM-OSMIC CHLORIDE—see Osmium & Sodium Chloride

Sodium Oxalate Merck—Reagent

Sørensen's Sodium Oxalate.— $\text{Na}_2\text{C}_2\text{O}_4 = 134.01$.—Wh., cryst. powd.—SOL.: Abt 31 cold, & abt 16 boil'g, W.

MAXIMUM OF IMPURITIES

Insol. Matter	0.010%
Hygroscopic Moisture	0.010%
Acidity (as NaHC_2O_4)	0.022%
Alkalinity (as Na_2CO_3)	0.021%
Chloride (Cl)	0.002%
Nitrate (N_2O_5)	0.000%
Phosphate (P_2O_5)	0.000%
Sulphate (SO_3)	0.0016%
Iron (Fe)	Abt 0.001%
Other Heavy Metals	0.000%
Potassium (K)	0.020%
Organic Impurities	Trace

USES: Standardizing volumetric soluts.

Sodium Oxalate Merck—C.P.

$\text{Na}_2\text{C}_2\text{O}_4 = 134.01$.—Wh. cryst. powd.—SOL.: Abt 31 cold, & abt 16 boil., W.

MAXIMUM OF IMPURITIES

Insol. Matter	0.040%
Acidity (as NaHC_2O_4)	0.112%
Alkalinity (as Na_2CO_3)	0.050%
Chloride (Cl)	0.005%
Nitrate (N_2O_5)	0.002%
Sulphate (SO_3)	0.005%
Heavy Metals	0.000%

USES: Prepar'g volumetr. soluts.

do. Merck

Wh. odorl., cryst. powd.; stable in air.—SOL.: Abt 30 cold, abt 16 boil'g, W.

SODIUM OXALATE, FERRIC—see Iron & Sodium Oxalate

SODIUM OXYMERCURY-ORTHONITROPHENOLATE—see Mercurophen

SODIUM PARACETYLAMINOPHENYLSTIBINATE—see StibenyI

SODIUM PARADIMETHYLAMINOAZOBENZENE-*p*-SULPHONATE—see Methyl Orange

SODIUM PARAFLUOROBENZOATE—see Sodium Fluorobenzoate

SODIUM PARAMINOBENZENESULPHONATE—see Sodium Sulphanilate

SODIUM PARAMINOPHENYLARSONATE—see Sodium Arsanilate

SODIUM PARATOLUENESULPHONCHLORAMIDE—see Chloramine

Sodium Perborate Merck—C.P.

$\text{NaBO}_3 + 4\text{H}_2\text{O} = 153.96$.—Wh. granules or cryst. powd., yielding 9% available O; stable when kept cool & dry but liberates O on expos. to heat or moisture.—SOL.: Abt 40 W.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.003%
Phosphate (P_2O_5)	0.001%
Sulphate (SO_3)	0.050%
Barium (Ba)	0.015%
Calcium (Ca)	0.030%
Iron (Fe)	0.005%
Other Heavy Metals	0.000%

USES: Oxidizer; reag. f. blood (Bardach; Walter), & boiled milk (Bruère).

do. Merck—N.F. V

Wh., odorl. powd.; yields not less than 9% available O; stable in cool or dry air, but decomp'd in warm or moist air.—SOL.: Abt 40 W. at 15° C. w. some decomp'n; on contact w. boric, tartaric, or citric acid, oxygen is liberated; a 2% solut. = a 0.4% H_2O_2 solution.—ACTION: Antisept.; Deodor.; Bactericide.—USES: Strongly infected, fetid & gangrenous wounds (inst. of H_2O_2 & boric acid), dis. of throat, nose, & ear; acne, etc.; as dust.-powd. on purul. sores, varicose ulcers; as baths (300 Gm. [10 oz.] w. 15 Gm. [$\frac{1}{2}$ oz.] manganese borate as catalyzer) in neurasthenia, uncompensated heart dis., tachy-

cardia, functional neuroses, nephritis, arteriosclerosis, etc.; also in toilet prep's.—*Techn.*, in bleaching straw, paper, wool, Panama hats, ivory, sponges, bristles, fats, oils, resins, waxes, textiles, & disinfecting; in laundering; manuf. H_2O_2 , dentifrices, soaps, soluble starch, etc.—*Dose*: Aver., 0.06 Gm. (1 grn.).—*APPL.*: In powd., in aqu. solut. w. citric acid, or as 1:5 (petrolatum) oint.; prepar. oxygen baths.

Sodium Perchlorate Merck

$\text{NaClO}_4 + \text{H}_2\text{O} = 140.48$.—*Colorl.*, deliq. cryst.—*SOL.*: v. eas. *W.*—*USES*: *Techn.*, in explosives.

Sodium Permanganate Merck—Technical

$\text{NaMnO}_4 + 3\text{H}_2\text{O} = 195.98$.—Reddish-black v. hygrosc. granules.—*SOL.*: v. eas. *W.*; decomp. by A.—*USES*: As antidote in poison. by morphine, curare, & P (stomach is washed w. a 0.2% aqu. solut., & $\frac{1}{2}$ liter [approx. 1 pint] of the solut. drunk.).—*Techn.*, as oxidizer, & inst. of KMnO_4 ; destroying *Oidium Tuckeri*.

Sodium Peroxide Merck—Reagent

Sodium Dioxide, or Superoxide.— $\text{Na}_2\text{O}_2 = 78.00$.—Yellowish, somewh. granular, hygrosc. powd.—*SOL.*: Eas. *W.* w. evol'n of O.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.003%
Phosphate (P_2O_5).....	0.001%
Silicate (SiO_2).....	0.010%
Sulphate (SO_3).....	0.001%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%
Nitrogen (N).....	0.003%

USES: Powerful oxidizer; reducing salts of Hg, Ag, Au, also permanganates; determ'g S, N, P, & their comp'ds & halogens; destroy'g organ. matter; efficient flux in difficult fusions; in Parr calorimeter; separ. Fe_2O_3 & MnO fr. Cr_2O_3 ; decomp. Cr ores, ferrochrome, sulphides; reag. f. Cr salts (Alcock), emetine (Peroni), & organ. comp'ds (Piñerua).

Sodium Peroxide Merck—C.P.

Sodium Dioxide or Superoxide.— $\text{Na}_2\text{O}_2 = 78.00$.—Cont's at least 90% $\text{Na}_2\text{O}_2 = 18.4\%$ available O.—Yellowish-wh. powd.—*SOL.*: Eas. *W.*, w. decomp. of heat (NaOH & H_2O_2 formed & O evolved).

MAXIMUM OF IMPURITIES

Sulphate (SO_3).....	0.005%
Chloride (Cl).....	0.010%
Phosphate (P_2O_5).....	0.003%
Iron (Fe).....	0.005%
Other Heavy Metals.....	Trace
Nitrogen (N).....	0.003%

USES: As of the Reagent, above.

do. Merck

DESCRIPT. & *SOL.*: As preceding.—*ACTION*: Exceed. active & powerful oxidizer.—*USES*: Not used intern.; *extern.*, as sod. peroxide soap (Unna), or as paste, to remove indurated comedones.—*Techn.*, in 40%–50% aqu. solut. f. bleaching discolored teeth w. dead pulp, &

disinf. root canals; bleach. animal & veget. fibers & tissues (wool, silk, hair, bristles, feathers, bones, straw, ivory, wood, fats, wax, sponges, coral, oils, &c.); rendering respirable air charged w. CO_2 (in torpedo boats, submarines, diving bells, etc.); purifying air in sickrooms; dyeing & printing textiles; manuf. intermediates, etc.—*CAUT.*: Liable to cause ignition on contact w. E., or o. inflam. liq.

Sodium Persulphate Merck

$\text{Na}_2\text{S}_2\text{O}_8 = 238.12$.—Wh. cryst. powd.—*SOL.*: *W.*—Strong bleacher & antisept. like the potassium salt (*q.v.*).—*ACTION*: Aperient; Eupptic.—*USES*: Tuberc., & in convalescence; chlorosis, neurasth., hyperchlorhydria w. gastric atony; typhoid; anorexia in tuberculous, chlorotic, & neuropathic cases; *subcut.* in tetanus.—*Chem.*, test f. indican (Amann), pyramidon & abristol (Barral), yohimbine (Miranda), & adrenaline (Pancrazio); also as oxidizer.—*Techn.*, bleaching oils, fats, soap, glue & textiles; depolarizer in batteries.—*Dose*: 0.2 Gm. (3 grn.) in *W.*, once daily, 1 hr bef. meals; *childr.*, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.). In typhoid, 2 Gm. (30 grn.) in 60 cc. (2 fl. oz.) *W.* ev. 3 hrs.—*Subcut.* in tetanus, 10 cc. (2½ fl. dr.) of a 2.5%–5% solut.

SODIUM PHENATE, or PHENOLATE—see Sodium Carbolate

Sodium Phenolphthaleinate

$\text{Na}_2\text{C}_{20}\text{H}_{12}\text{O}_4 = 362.20$.—Reddish-brown, gran. mass; coppery luster.—*SOL.*: *W.*

Sodium Phenolsulphonate Merck—U.S.P. IX—Gran., or Powd.

Sodium Sulphocarbolate.— $\text{C}_6\text{H}_4\text{OH}.\text{SO}_2\text{ONa} + 2\text{H}_2\text{O} = 232.16$.—*Colorl.* cryst. or powd.; sltly bitter taste.—*SOL.*: 4.2 *W.*, 140 A., 5 G., at 25° C., 0.8 boil. *W.*, & 13.5 boil. A., U.S.P. IX.—*ACTION*: Antisept.; Disinfectant.—*USES*: *Intern.*, dyspep., phth., cholera, typhoid fever, flatulence, dysent., purpura hemorrhagica, &c.—*Extern.*, putrid wounds, & in gonorr., as an inj. in 0.5%–1% solut.; also as spray to remove false membranes in diphth., scarlatina, aphthae, etc.—*Dose*: 0.3–1 Gm. (5–15 grn.); aver. dose, 0.25 Gm. (4 grn.).

SODIUM PHENONACETATE—see Guaiacetin

SODIUM PHENYLDIMETHYLPYRAZOLONAMINOMETHANESULPHONATE—see Melubrin

SODIUM PHENYLDIMETHYLPYRAZOLONMETHYLAMINOMETHANE SULPHONATE—see Novalgin

SODIUM *n*-PHENYLGLYCINEAMIDE-*p*-ARSONATE—see Tryparsamide

Sodium Phenylpropiolate

$\text{C}_6\text{H}_5\text{C}:\text{C}.\text{COONa} = 168.09$.—Wh. powd.—*SOL.*: *W.*—*USES*: Laryngeal & pulmonary tuberc.—*APPL.*: A 1%, 2%, & 3% solut. the first, second, & third week respectively, inhaled as spray twice daily.

Sodium Phosphate Merck—Dibasic—Reagent—Anhydrous

Sørensen's Sodium Phosphate.— $\text{Na}_2\text{HPO}_4 = 142.05$.—Wh., hygrosc. powd.—*SOL.*: Abt 10 *W.*

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.0000%
Sulphate (SO ₃).....	0.0050%
Chloride (Cl).....	0.0020%
Moisture.....	0.1000%

USES: With KH_2PO_4 , anhydrous, f. determ'g the H-ion concentration of bacteriological culture media & o. liquids.—*Reminder*: This is the anhydrous article. For convenience in using, note the following equivalents: 1 Gm. $\text{Na}_2\text{HPO}_4 = 1.2536$ Gm. $\text{Na}_2\text{HPO}_4 + 2\text{H}_2\text{O}$.—1 Gm. $\text{Na}_2\text{HPO}_4 + 2\text{H}_2\text{O} = 0.7977$ Gm. Na_2HPO_4 .

Sodium Phosphate Merck—Dibasic—Reagent—Cryst.

Dibasic, or Secondary, Sodium Phosphate.— $\text{Na}_2\text{HPO}_4 + 12\text{H}_2\text{O} = 358.24$.—Colorl., effloresc. cryst. or granules.—SOL.: Abt 6 W.—MELT.: Abt 35° C., & becomes anhydrous at 100° C.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.001%
Nitrate (N ₂ O ₅).....	0.002%
Sulphate (SO ₃).....	0.010%
Arsenic (As).....	0.0005%
Heavy Metals.....	0.000%
Potassium Salts.....	Trace

USES: Detect'g alkaline earths, quinine, uric acid; standardizing uranium soluts; determ. Mg & Zn; recovering molybdic acid; reag. f. Li (Benedict), Pb (Brenstein), cinchona alkaloids (Messner), uric acid (Riegler), & alkaloids (Schultze).

Sodium Phosphate Merck—Dibasic.—C.P.—Cryst.

Disodium Orthophosphate; Secondary Sodium Phosphate.— $\text{Na}_2\text{HPO}_4 + 12\text{H}_2\text{O} = 358.24$.—Colorl. cryst. or granules; cooling, saline taste.—SOL.: Abt 6 W.—MELT.: Abt 35° C.; at 100° C. becomes anhydrous.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.005%
Sulphate (SO ₃).....	0.050%
Arsenic (As).....	0.00075%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Pure—Gran.

$\text{Na}_2\text{HPO}_4 + 12\text{H}_2\text{O} = 358.24$.—Colorl., translucent. cryst. or granules; cooling saline taste.—SOL.: 2.7 W. at 25° C., v. sltly in A. U.S.P.—MELT.: Abt 40° C.; loses 5 mol. W. of cryst. (25.1%) by effloresc.—ACTION: Cath.; Antilithic.—USES: Stimulant of biliary secretion, as mild lax.; in osteomalacia, rachitis, scrofula, uric acid diathesis, chron. rheum., jaundice, & in vesical calculi & gall stones.—*Techn.*, tanning; manuf. leather; in baking powders; mordant in dyeing; fertilizers; manuf. matches, enamels, dyes.—DOSES: 0.3–6 Gm. (5–90 grn.) sev'l t.p.d.; aver. dose, 4 Gm. (60 grn.); as a laxative, 15–30 Gm. ($\frac{1}{2}$ –1 oz.).—*Subcut.*, in

withdrawal treatment of morphine habit, in 3%–5% solut.—*Incomp.*: Alkaloids, antipyrine, phenol, chloral hydrate, lead acetate, pyrocatechin, pyrogallol, resorcinol, salicylic acid, sod. salicylate.—CAUT.: Keep in well-stoppered bottles; considerable W. of crystallization lost on expos.

do. Merck—Twice Purified—Dried (Exsiccated), U.S.P. X

$\text{Na}_2\text{HPO}_4 = 142.05$.—Wh. powd.—SOL.: 81 W. at 25° C., 1.1 boil. W., insol. A.—USES: *Medic.*, as of the preced'g.—*Techn.*, instead of borax in soldering & brazing; in ceramics; fireproof paints, starches, wood, & textiles.—DOSE: Aver., 2 Gm. (30 grn.).

do. —Effervescent—U.S.P. X

Mixt. 20 exsicc. Na_2HPO_4 , 47.7 NaHCO_3 , 25.2 citric acid, & 16.2 tartaric acid.—ACTION: Lax.—DOSE: 4–15 Gm. (1–4 dr.); aver. dose, 10 Gm. ($2\frac{1}{2}$ dr.).

do. —Effervescent—B.P.

Mixt. 50 cryst. Na_2HPO_4 , 50 NaHCO_3 , 27 tartaric acid, 18 citric acid.—DOSE: 4–8 Gm. (60–120 grn.) repeatedly, or 10–16 Gm. ($2\frac{1}{2}$ –4 dr.) at one dose.—The sod. phosphate is dried until it loses 60% of its wt before being mixed w. the o. powders.—CAUT.: Keep dry & well stoppered.

Sodium Phosphate Merck—Monobasic—C.P.

Sodium Biphosphate; Sodium Dihydrogen Phosphate; Acid Sodium Phosphate; Monosodium Orthophosphate.— $\text{NaH}_2\text{PO}_4 + \text{H}_2\text{O} = 138.07$ (also occurs w. $2\text{H}_2\text{O}$).—Colorl. cryst. or wh. granules.—SOL.: Freely in W. (solut. acid to litmus); pract. insol. A., C. E.

MAXIMUM OF IMPURITIES

Disodium Phosphate (Na_2HPO_4).....	2.13%
Phosphoric Acid (H_3PO_4).....	1.47%
Chloride (Cl).....	0.003%
Sulphate (SO ₃).....	0.030%
Aluminum (Al).....	0.005%
Arsenic (As).....	0.000%
Calcium (Ca).....	0.010%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

do. Merck—U.S.P. X—Gran. or Powd.

Colorl. gran. or wh. powd.—SOL.: Eas. W.; pract. insol. A., C., E.—USES: Cystitis; nervous impairment & in psychic depression; as solvent of calcium oxalate deposits or calculus; also to assist action of methenamine (but not given w. it), to render an alkaline urine acid.—*Techn.*, in baking powders.—DOSE: Aver., 0.6 Gm. (10 grn.); 2–4 Gm. (30–60 grn.), B.P.C. In nervous impairm. & psych. depress., 0.2–0.6 Gm. (3–10 grn.), in 10% solut.; in cystitis, 2–3 Gm. (30–45 grn.) ev. 2–3 hrs w. W.; to assist methenamine, 2–4 Gm. (30–60 grn.) ev. 3 hrs; or better, 1–1.3 Gm. (15–20 grn.) frequently repeated till urine acid.

Sodium Phosphate Merck—Tribasic—C.P.

Normal Sodium, or Trisodium, Orthophosphate.— $\text{Na}_3\text{PO}_4 + 12\text{H}_2\text{O} = 380.23$.—Colorl. cryst.—SOL.: Abt 5 W. (solut. alk. to litmus); insol. A.

MAXIMUM OF IMPURITIES

Carbonate	0.000%
Chloride (Cl)	0.005%
Sulphate (SO_3)	0.010%
Heavy Metals	0.000%

do. Merck—Tribasic—Purified—Gran.

USES: Photogr. developers; clarifying sugar.

do. Merck—Tribasic—Technical—Gran.

Colorl. cryst.—USES: *Techn.*, to remove boiler scale; softening W.; calibrating thermometers; laundering; paper manuf.; tanning leather; clarifying sugar; in photo. developers.

SODIUM PHOSPHATE, NORMAL—see Sodium Phosphate, Tribasic

SODIUM PHOSPHATE, SECONDARY—see Sodium Phosphate, Dibasic

SODIUM PHOSPHATE, TERTIARY—see Sodium Phosphate, Tribasic

Sodium Phosphite Merck

$\text{Na}_2\text{HPO}_3 + 5\text{H}_2\text{O} = 216.13$.—Wh., cryst., hygrosc. powd.—SOL.: Eas. W.—ACTION: Laxative.—USES: Poisoning by HgCl_2 .—DOSE: 0.3–0.6 Gm. (5–10 grn.) f. ea. grain HgCl_2 swallowed, & w. 0.3 (5 grn.) sod. acetate given ev. hr; also as laxative, taken in the morning.

SODIUM PHOSPHOMETAWOLFRAMATE—see Sodium Phosphotungstate

Sodium Phosphomolybdate Merck

Sodium Molybdophosphate.— $\text{Na}_3\text{PO}_4.12\text{MoO}_3 = 1892.04$.—Wh. cryst.—SOL.: Eas. W.—USES: Test f. alkaloids, plant oils (Welman; Geuther), emetine (Podwyssotski), & K (Schlicht); also in neuromicroscopy.

Sodium Phosphotungstate Merck

Sodium Phosphometawolframate.— $2\text{Na}_2\text{O} \cdot \text{P}_2\text{O}_5.12\text{WO}_3 + 18\text{H}_2\text{O} = 3374.37$.—Wh., gran. powd.—SOL.: W.; eas. hot W.—USES: Test f. alkaloids, uric acid (Cervello), K (Meyer), & ferrous salts (Richaud).

Sodium Phosphovanadate

$4\text{Na}_2\text{O} \cdot \text{VO}_2.4\text{V}_2\text{O}_5.5\text{P}_2\text{O}_5.37\text{H}_2\text{O} = 2435.99$.—Green scales.—Insol. W.

Sodium Phthalate

$\text{C}_6\text{H}_4(\text{COONa})_2[1:2]$.—Wh. powd.—SOL.: v. eas. W.

SODIUM PLATINICHLORIDE—see Platinum & Sodium Chloride

SODIUM PLATINOCHLORIDE—see Platinum & Sodium Chloride Platinous

SODIUM PLATINOCYANIDE—see Platinum & Sodium Cyanide

Sodium Plumbate Merck

$\text{Na}_2\text{PbO}_3 + 3\text{H}_2\text{O} = 355.25$.—Light-yellow,

fused, hygrosc. lumps; decomp. by W. w. separ. of PbO_2 .—USES: Techn.

Sodium Propionate

$\text{NaC}_3\text{H}_5\text{O}_2 = 96.06$.—Wh., gran. powd.—SOL.: Eas. W., A.

Sodium Propylsulphate

$\text{CH}_3.\text{CH}_2.\text{CH}_2\text{SO}_4\text{Na} = 162.15$.—Wh. cryst.—SOL.: Eas. W.

SODIUM PYROANTIMONATE—see Sodium Antimonate

SODIUM PYROBORATE—see Sodium Borate

SODIUM PYROCATECHINMONACETATE—see Guaiacetin

Sodium Pyrophosphate Merck—Reagent

Tetrasodium Pyrophosphate.— $\text{Na}_4\text{P}_2\text{O}_7 + 10\text{H}_2\text{O} = 446.24$.—Colorl. cryst.; effloresc. in dry air.—SOL.: Abt. 10 W. (solut. alk. to litmus).

MAXIMUM OF IMPURITIES

Carbonate (CO_2)	0.000%
Chloride (Cl)	0.002%
Nitrate (N_2O_5)	0.001%
Orthophosphate (P_2O_5)	0.200%
Sulphate (SO_3)	0.005%
Arsenic (As)	0.0003%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%
Potassium Salts	Trace

USES: Electrolytic separ'n of various metals; detect'g Co.

Sodium Pyrophosphate Merck—C.P.—Cryst.

$\text{Na}_4\text{P}_2\text{O}_7 + 10\text{H}_2\text{O} = 446.24$.—Colorl. cryst.—SOL.: Abt 10 W. (solut. alk. to litmus); insol. A.

MAXIMUM OF IMPURITIES

Carbonate (CO_2)	0.000%
Chloride (Cl)	0.005%
Nitrate (N_2O_5)	0.001%
Orthophosphate (P_2O_5)	0.500%
Sulphate (SO_3)	0.010%
Arsenic (As)	0.000%
Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. VIII—Gran. or Powd.

Wh., monoc. prisms, or wh. powd.—SOL.: Abt 10 W. at 25°C .; 1.1 boill. W., & insol. A., U.S.P. VIII.—Loses its W. of cryst. at 100°C .—ACTION: Cath.; Hepatic; Stim.; Antilithic.—USES: Lithiasis (rarely).—*Techn.*, manuf. iron pyrophosphate; also remov. rust stains.—DOSE: 0.12–1.3 Gm. (2–20 grn.); 1–4 Gm. (15–60 grn.), B.P.C.

do. Merck—Technical—Gran.**do. —Dried**

$\text{Na}_4\text{P}_2\text{O}_7 = 266.08$.—Wh. powd.—SOL.: W.

do. —Fused

Anhydrous Sodium Pyrophosphate.— $\text{Na}_4\text{P}_2\text{O}_7 = 266.08$.—Wh. sticks.—SOL.: W.

Sodium Pyrophosphate (Acid)

Disodium Dihydropyrophosphate.— $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ = 222.10.—Wh. fused masses or powd.—**SOL.**: W.—**USES**: *Medic.* inst. of & like sod. phosphate, but in doses $\frac{1}{2}$ less.—*Techn.*, manuf. pyrophosphates, remov'g rust stains fr. fabrics, & inst. of cream of tartar in baking.—**AVER.** DOSE: 2 Gm. (30 grn.).

SODIUM PYROPHOSPHATE, ANHYDROUS—see Sodium Pyrophosphate, Fused

SODIUM PYROSULPHITE—see Sodium Metabisulphite

SODIUM QUINOPHTHALONSULFONATE—see Quinoline Yellow, Water-soluble

SODIUM RHODANIDE—see Sodium Sulphocyanate

SODIUM ROSANILINESULFONATE—see Ruby S

SODIUM ROSOLATE—see Corallin, Water-soluble

Sodium Saccharate

$\text{C}_{12}\text{H}_{21}\text{NaO}_{11}$ = 364.23.—Wh. powd.—**SOL.**: v. eas. W.—**ACTION**: Powerful Cardiac Stimulant.—**USES**: Hypoderm. & intraven. in acute anemia where death threatens.—**DOSE**: 250–330 cc. (8–11 fl. oz.) by inj. of solut. contain. 0.033% sod. saccharate & 0.8% NaCl; is also given internally & rectally.

SODIUM SALICYLLALLYLAMIDOACETIC ACID-MERCURIC ACETATE—see Salyrgran

Sodium Salicylate Merck—C.P.—Cryst.

$\text{C}_6\text{H}_4(\text{OH})\text{COONa}$ = 160.08.—Wh. scaly cryst., or powd.—**SOL.**: Abt 1 W., abt 10 A., abt 4 G.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_4).....	0.010%
Sulphite & Thiosulphate (as SO_2).....	0.030%
Heavy Metals.....	0.000%

USES: As test f. HNO_3 (Caron; Loof), glucose (Haussmann; Schreiber), & free acids (de Jager).

do. Merck—U.S.P. X—Cryst. or Powd.

Lustr., wh. leaflets, or fine wh. powd.; sweetish, saline taste.—**SOL.**: 0.9 W. & 9.2 A. at 25°C ., v. sol. boil. W. or A., & 4 G., U.S.P.—**ACTION**: Antirheum.; Antisep.; Antipyr.; Analges.—**USES**: *Intern.*, rheum., neural., pneumonia, typhoid, pleurisy, scarlat., chorea, pericarditis, influenza, diabetes, sciatica, fermentative dyspepsia, migraine, alveolar periostitis. Base-dow's dis., artic. rheum., renal colic, bilious headache, nasal catarrh, mumps, & diarr. of young childr.—*Intraven.*, acute artic. rheum., neuralg., musc. rheum., pleurisy, acute laryngitis; also where not well borne intern.—*Rectally*, in cerebrospinal mening. & in acute pneum.—*Extern.*, as 4% solut. f. chapped hands, sore nipples, ulcerated chilblains.—*Techn.*, as preservative (f. paste, mucilage, glue, hides, & also food products, but its use f. last-named purpose is forbidden in some countries).—**DOSES**: 0.12–2 Gm. (2–30 grn.); aver. dose, 1 Gm. (15 grn.); in artic. rheum., 1–2 Gm. (15–30 grn.) ev. hr; in renal colic, 0.4 Gm. (7 grn.) 3–4 t.p.d.; in diarrh. of young childr.,

0.12 Gm. (2 grn.) ev. 2–4 hrs f. a child of 9 months.—*Rectally*, adults, 1 Gm. (15 grn.) ev. 3–6 hrs; in acute rheum., 8–10 Gm. (120–150 grn.) f. men, & 6 Gm. (90 grn.) f. women in 120–180 cc. (3–6 fl. oz.) W. or starch-W. w. 1.5 cc. (24 M) tr. opium.—**MAX. D.**: 4 Gm. (60 grn.) single.—Also in suppos., 4–6 Gm. (60–90 grn.).—In **VETER. MED.** as antipyretic & antirheumatic; *cattle*, 25–75 Gm. (6–18 dr.) single, up to 150 Gm. (5 oz.) p. day; *horses*, 25–50 Gm. (6–12 dr.) single, up to 100 Gm. (25 dr.) p. day; *sheep, goats & pigs*, 5–10 Gm. (75–150 grn.) single, 25 Gm. (6 dr.) p. day; *dogs*, 0.3–2 Gm. (5–30 grn.) single, 5 Gm. (75 grn.) p. day.—**INCOMP.**: Ferric salts, lime-water, spt. nitrous ether, mineral acids, quinine salts in solut., lead acetate, AgNO_3 in solut., Na_2HPO_4 in powd.—**NOTE**: The claimed superiority of the "natural" salicylic acid & salicylates over the "synthetic" products has been studied practically, & from the investigations made under the auspices of the Committee on Therapeutic Research of the Council on Pharmacy & Chemistry, the conclusion is reached that there is no difference in the actions of "natural" & synthetic salicylates, & that statements that differences exist are unfounded.—**CAUT.**: Keep well stoppered, & protect fr. heat & light.

do. Merck—Fr. Natural Oil, U.S.P. X—Powd.

DESCRIPTION, USES, DOSES, etc.: As preceding.

SODIUM SALICYLSULFONATE—see Sodium Sulphosalicylate, Acid

Sodium Santonate Merck—(Not Santoninate)

$\text{NaC}_{15}\text{H}_{19}\text{O}_4$ = 286.23.—Wh., hygros. powd.—**SOL.**: Eas. A.; v. eas. W.—Not used medic.; has no anthelmintic action.

Sodium Santoninate Merck—(Not Santonate)

$\text{NaC}_{15}\text{H}_{19}\text{O}_4 + 3\frac{1}{2}\text{H}_2\text{O}$ = 349.28.—Groups of needles; mildly saline taste; turns yellow in light.—**SOL.**: 3 W., 12 A.; 0.5 boil. W.; 3.4 boil. A.—**ACTION**: Anthelmintic.—**USES**: Inst. of santonin (but less powerful) f. intest. worms; also pulmon. tuberc. Must be given w. caution as more eas. sol. than santonin. Is best given in keratinized pills.—**DOSE**: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) f. adults.—**MAX. D.**: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.—**CAUT.**: Keep fr. light in dark amber bottles.

Sodium Selenate

$\text{Na}_2\text{SeO}_4 + 10\text{H}_2\text{O}$ = 369.36.—Wh. cryst.—**SOL.**: v. eas. W.—**USES**: Cancer.—*Techn.*, as reagent.

Sodium Selenite

$\text{Na}_2\text{SeO}_3 + 5\text{H}_2\text{O}$ = 263.28.—Wh. cryst.—**SOL.**: Eas. W.; insol. A.—**USES**: In bacteriology, in 2% solut., f. demonstrat. reducing properties of bacteria; test f. codeine (Lafon), & alkaloids & acetic anhydride (Klein).

do. Merck—Technical

Wh. or reddish powd.—**SOL.**: Eas. W.—**USES**: Remov. green color fr. glass; decorating porcelain.

Sodium Silicate Merck—Dry

Soluble Glass.—Approx., $\text{Na}_2\text{Si}_2\text{O}_5 \cdot 2\text{H}_2\text{O} = 218.23$.—Colorl., deliquesces, pieces.—**SOL.:** W.—**USES:** Tubercul., acid poisoning, hyperacidity, arthritis deformans, diabet., gout, pulmon. phth., uric acid diathesis, arteriosclerosis, gastric flatulence & pain, & digest. disturb. due to intest. autointoxic. Also in treatm. of cancer, employing a mixt. of potass. silicate 1, sod. silicate 1, & milk sugar 3, of which 0.25 Gm. (4 grn.) are given 3 t.p.d., w. a mixt. of As_2O_3 , HgS, & animal charcoal appl. extern.—**DOSE:** In uric acid diathesis, 0.1–0.25 Gm. ($1\frac{1}{2}$ –4 grn.) p. day; in tuberc., arteriosclerosis, & arthritis deform., 1 Gm. (15 grn.) p.d. in CO_2 -W. or milk; in pemphigus, 10–20 pills of 0.1 Gm. ($1\frac{1}{2}$ grn.) ea. per day.

do. Merck—Pure—Cryst.

Soluble Glass.— $\text{Na}_2\text{SiO}_3 + 6\text{H}_2\text{O} = 230.20$.—Wh. to grayish-wh., hard, flat pieces.—**SOL.:** W.—**USES:** A 1–2:1000 solut. in Lippspringe W. has been recom. in tubercul., & arteriosclerosis.

do. Merck—Technical—Lumps

Variable compos'n; approx. $\text{Na}_2\text{Si}_3\text{O}_7$.—Grayish-wh., hard lumps.—**SOL.:** v. slowly in W.; insol. A.; decomp. by acids.

do. Merck—Solution—Sp. Gr. 1.38–1.40 = 40°–42° Bé

Egg Preserver.—Syrupy, yellowish, or greenish, strongly alk. liq.; abt 40% $\text{Na}_2\text{Si}_3\text{O}_7$ —Misc. W.—**USES:** *Intern.*, arteriosclerosis, & rarely as antilithic in gout. Also in artif. mineral waters, & techn.—*Extern.*, fixed dressings f. dis. joints, fractures, &c.—*Techn.*, fireproofing fabrics, cementing stones, waterproofing walls, in hydraulic mortars, dyeing & bleaching, painting on glass, various cements, filling soaps, &c.; also f. preserving eggs (3–5 parts solut. w. 97–95 parts W.); purifying fats & oils; as adhesive instead of mucilage or glue; sizing & greaseproofing paper; manuf. mailing tubes & fiber board; cold-water paints; treating wood; in fireproofing comp'ds; tanning; electrical insulators; weighting silk; dyeing & calico printing; manuf. artif. stone; boiler comp'ds.—**DOSE:** 0.25–0.6 cc. (4–10 M) well diluted; in arteriosclerosis, 1.3–2.5 cc. (20–40 M) p.d.—*Inj.*, in gonor. in 0.1% solut.—**INCOMP.:** Acids.—**CAUT.:** Keep in rubber-stoppered bottles.

Sodium Silicofluoride Merck—C.P.

Sodium Fluosilicate.— $\text{Na}_2\text{SiF}_6 = 188.10$.—Wh., gran. powd.—**SOL.:** 200 cold, 40 boil., W., & insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.050%
Calcium (Ca).....	0.070%
Soluble Heavy Metals.....	0.000%

USES: *Chem.*, pptng K (in fairly strong soluts. of K salts).—*Medic.*, as Antisep.; Germicide;

Deodorant; Styp.—Not used *intern.*—*Extern.*, wounds, carious teeth, cystitis, gonor., &c., in 1:500 solut. or weaker. Said to be superior to corros. sublimate as disinf. f. irrigating cavities, & in gynecological practice in 1:5000 solut.

do. Merck—For Technical Use

Salufer.—**DESCRIPT. & SOL.:** As preceding.—**USES:** *Techn.*, enamels f. china & porcelain; manuf. glass; also as insect exterminator & mouse & rat poison.

SODIUM SILVINATE—see Sodium Sylvate

SODIUM SOZOIODOLATE—see Soziodole-Sodium

Sodium Stannate Merck

Abt 53% $\text{Na}_2\text{SnO}_3 = 212.70$.—Grayish-wh. hygroscop. granules or powd.; abstracts CO_2 fr. the air; decomp'd by acids, even CO_2 , & most salts.—**SOL.:** Partly in W.—**USES:** Mordant in dyeing & in print. calicoes.—**CAUT.:** Keep well stopp'd.

do. Merck—Technical—Powd.

SODIUM STANNICHLORIDE—see Tin & Sodium Chloride

Sodium Stearate Merck

$\text{NaC}_{18}\text{H}_{35}\text{O}_2 = 306.37$.—Wh. powd.; soapy feel.; cont's a variable quant. sod. palmitate.—**SOL.:** Hot W., hot A.—**USES:** Preparing Unna's alcohol pencils (sod. stearate 6, G. 2.5, A. to make 100) used in impetiginous dermatoses; parasitic skin dis., syccosis, acne, & rosacea.

do. Merck—Powd.

SODIUM SUBSULPHITE—see Sodium Thiosulphate

Sodium Succinate Merck—Gran. or Powd.

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_4 + 6\text{H}_2\text{O} = 270.15$.—Wh. granules or powd.—**SOL.:** Eas. W.; alm. insol. A.—**USES:** Catarrhal jaundice; gall stones.—**DOSE:** 0.3 Gm. (5 grn.) ev. 3 hrs.

do.—Anhydrous

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_4 = 162.05$.—Wh., gran., odorl. powd.—**SOL.:** Eas. W.; insol. A., C., E.—**ACTION:** Saline Cathart.—**USES:** Infections of gallbladder & biliary passages.—**DOSE:** 0.3 Gm. (5 grn.).

Sodium Sulphanilate Merck

Sodium Anilinesulphonate; Sodium Paraminobenzenesulphonate.— $\text{C}_6\text{H}_4(\text{NH}_2)\text{SO}_2\text{ONa} + 2\text{H}_2\text{O} = 231.18$.—Wh., lustr. leaflets.—**SOL.:** Eas. W.—**USES:** Dispelling unpleas. symptoms attending acute coryza & iodism, as it is said to convert the injurious nitrites formed in saliva & nasal mucus into indifferent diazo comp'ds.—**DOSE:** 1.5–2.5 Gm. (23–37 grn.) 2 t.p.d.

Sodium Sulphantimonate Merck

Sodium Thioantimonate; Schlippe's Salt.— $\text{Na}_3\text{SbS}_4 + 9\text{H}_2\text{O} = 479.58$.—Large, colorl. or light-yellow cryst.; alk. react.; on expos. to air, the cryst. become covered w. a reddish-brown coat of antimony sulphide.—**SOL.:** Abt 3 W.; insol A.; decomp. by acids.—**USES:** Test f. alkaloids; preparing golden antimony sulphide.

Sodium Sulphate Merck—Reagent—Cryst.

$\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O} = 322.22$.—Colorl., effloresc. cryst., or granules.—SOL.: Abt 3 W. (solut. neutral to litmus); insol. A.

MAXIMUM OF IMPURITIES

Substcs Insol. in Water.....	0.000%
Chloride (Cl).....	0.001%
Nitrate (N_2O_5).....	0.000%
Aluminum (Al).....	0.000%
Arsenic (As).....	0.0000%
Calcium (Ca).....	0.003%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.003%

USES: Precipit'g, detect'g, & determ'g Pb & Bi; remov'g Pb & Bi fr. soluts to be polarized or otherwise treated; determ'g fusel oil; also inst. of K_2SO_4 .

do. Merck—Reagent—Anhydrous

$\text{Na}_2\text{SO}_4 = 142.06$.—Wh. powd.—SOL.: Abt 7 W.; insol. A.

MAXIMUM OF IMPURITIES

Insol. Matter.....	0.000%
Water.....	0.500%
Free Alkali & Acid.....	None
Chloride (Cl).....	0.003%
Ammonia & Nitrate as Nitrogen (N).....	0.001%
Arsenic (As).....	0.000%
Calcium & Magnesium (Ca, Mg).....	0.020%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: Kjeldahl N determ'n; dehydrating organic fluids; also as of cryst. Na_2SO_4 .

Sodium Sulphate Merck—C.P.—Cryst., or Gran.

Glauber's Salt.— $\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O} = 322.22$.—Colorl. cryst.—SOL.: Abt 3 W. (solut. neutral to litmus); insol. A.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5).....	0.003%
Chloride (Cl).....	0.003%
Calcium (Ca).....	0.010%
Arsenic (As).....	0.000%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%
Magnesium (Mg).....	0.020%

USES: As of the Reagent, above.

do. Merck—C.P.—Anhydrous

$\text{Na}_2\text{SO}_4 = 142.06$.—Wh. powd.—SOL.: Eas. abt 7 W.; insol. A.

MAXIMUM OF IMPURITIES

Water.....	1.000%
Chloride (Cl).....	0.010%
Ammonia & Nitrate as Nitrogen (N).....	0.003%
Arsenic (As).....	0.001%
Calcium & Magnesium (Ca, Mg).....	0.030%
Iron (Fe).....	0.020%
Other Heavy Metals.....	0.000%

USES: Chiefly in Kjeldahl N determ.; dehydrating organic fluids, also like the cryst.

do. Merck—U.S.P. X—Cryst., or Gran.

Glauber's Salt.— $\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O} = 322.22$.—

Colorl., efflor., monocl. prisms, or gran. cryst.; bitter, saline taste.—SOL.: Abt 1 W. at 25° C., sol. G., insol. A., U.S.P.—MELT.: Abt 33° C.; at 100° C. loses all W. of cryst. (abt 56%).—ACTION: Cathart.; Aper.; Diur.—USES: Constip., dropsy, obesity, enterocolitis, torpid liver, lead colic, gastric ulcer, cystitis, &c., & in artif. mineral waters & salts. Largely in veter. pract.—DOSE: 4–30 Gm. (1–8 dr.); aver. dose, 15 Gm. (4 dr.).—In VETER. MED., horses, 250–500 Gm. (approx. $\frac{1}{2}$ –1 lb.); cows, 500–750 Gm. (approx. 1–1½ lb.); sheep, goats, & pigs, 15–60 Gm. ($\frac{1}{2}$ –2 oz.); dogs, 10–25 Gm. (2½–6 dr.); cats & fowl, 2–5 Gm. (30–75 grn.).

do. Merck—Pure—Dried**do. Merck—Technical—Cryst., Gran., Dried Ground, or Dried Powd.**

USES: Manuf. turkey red oil, glass, ultramarine, intermediates; standardizing dyes; in soaps, freezing mixtures & manuf. ice & paper pulp; dyeing & printing textiles.

Sodium Sulphide Merck—Reagent

$\text{Na}_2\text{S} + 9\text{H}_2\text{O} = 240.20$.—Clear, colorl., deliquescent. cryst.—SOL.: Eas. & clearly in abt 2 W. (solut. alkal. to litmus).

MAXIMUM OF IMPURITIES

Nitrogen (N).....	0.002%
Sulphite & Thiosulphate (as S).....	Abt 0.05%
Heavy Metals.....	0.000%

USES: Pptng & separ'g Cu, Bi, Cd, Sb, & Sn; determ'g Cu & Zn, sugar, & I in mixtures; in Kjeldahl N method f. remov'g Hg before distill'n; detect'g xanthine; reag. f. brucine (Cotton), Fe (Klut), & morphine (Vitali).

Sodium Sulphide Merck—C.P.—Cryst.

Sodium Monosulphide.— $\text{Na}_2\text{S} + 9\text{H}_2\text{O} = 240.20$.—Clear, colorl., deliquescent. cryst.—SOL.: Eas. & clearly in abt 2 W. (solut. alkaline to litmus).

MAXIMUM OF IMPURITIES

Nitrogen (N).....	0.004%
Sulphite & Thiosulphate (as S).....	Abt 0.20%
Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck—Purified—Cryst.

Colorl., or sltly yellowish deliq. cryst.—SOL.: v. eas. W., A.—MELT.: Abt 50° C. in its W. of cryst.—USES: Intern., asthma.—Extern., as oint. in skin dis., & as depilatory.—Techn., photog. developer; depilatory.—DOSE: In asthma, 1–3 tablesp. p.d. of a 0.5:250 solut. in syr. tolu.

do. Merck—Technical—Brown Cryst.

USES: Denitrating artif. silk; in dyeing w. sulphur dyes; cleaning textile fibers; in insecticides; depilatory; manuf. a special glass; de-hairing hides; destroying weeds; manuf. rubber, paper, intermediates & sulphur dyes; process engraving.

Sodium Sulphite Merck—Reagent—Anhydrous

$\text{Na}_2\text{SO}_3 = 126.06$.—Wh. powd.—SOL.: Abt 4 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Arsenic (As).....	0.0002%
Iron (Fe).....	0.002%
Other Heavy Metals.....	0.000%

USES: Reducer, especially As_2O_5 to As_2O_3 ; assaying certain aldehydes & ketones; also in photography.—CAUT.: Keep well stoppered & cool.

Sodium Sulphite Merck—C.P.—Cryst.

$\text{Na}_2\text{SO}_3 + 7\text{H}_2\text{O} = 252.17$.—Colorl., effloresc. cryst.—SOL.: Abt 3 W.; abt 30 G.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Thiosulphate ($\text{Na}_2\text{S}_2\text{O}_3$).....	0.080%
Iron (Fe).....	0.003%
Other Heavy Metals.....	Trace

USES: As of the Reagent, above.

do. Merck—C.P.—Dried, Anhydrous

$\text{Na}_2\text{SO}_3 = 126.06$.—Wh. powd.—SOL.: Abt 4 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Arsenic (As).....	0.0007%
Heavy Metals.....	Trace

USES: As of the Reagent, above.

do. Merck—Cryst.

$\text{Na}_2\text{SO}_3 + 7\text{H}_2\text{O} = 252.17$.—Descript. & Properties: As of the C. P. cryst.—ACTION: Antisep.; Antizymotic.—USES: *Intern.*, infectious dis., typhoid, diphth., puerperal fever, septicemia, sarcina ventriculi, & chronic mercurialism.—*Extern.*, skin dis., sore mouth, diphth.; also as gargle & compress.—*Techn.*, as preservative & in bleaching. The impure grades of the salt are used like the sod. bisulphite (*q.v.*) in general.—DOSE: 0.3–1.3 Gm. (5–20 grn.) single, & 10–20 Gm. (2½–5 dr.) p. day.—CAUT.: Keep well stoppered & cool.

do. Merck—Dried (Exsiccated), U.S.P. IX

$\text{Na}_2\text{SO}_3 = 126.06$.—Wh., odorl. powd.—SOL.: 3.2 W. at 25° C., spar. A.—ACTION & USES: *Medic.*, as preced.—*Techn.*, as antiseptic & preservative f. grain, egg yolks, meats; bleaching wool, silk, straw, etc.; generat'g SO_2 gas; as reducer in manuf. dyes; silvering glass; preserv'g sugar; removing traces of Cl in bleached textiles & paper; manuf. sulphite cellulose.—DOSE: 0.3–1.3 Gm. (5–20 grn.); aver. dose, 1 Gm. (15 grn.).—CAUT.: Keep well stoppered & cool.

do. Merck—Dried, Photographic

USES: In photogr. developers to retard oxid'n, & inst. of hypo. f. fixing prints.—CAUT.: Keep well stoppered & cool.

SODIUM SULPHOCARBOLATE—see Sodium Phenol-sulphonate

Sodium Sulphocarbonate—Solution, 40° Bé

Sodium Thiocarbonate.—Aqu. solut. $\text{Na}_2\text{CS}_3 = 154.19$.—MISC.: W.—ACTION: Antisep.—USES: Destroying insects injurious to plants, & especially vines; chemically, f. detecting cobalt & nickel.

Sodium Sulphocyanate Merck—C.P.—Cryst.

Sodium Sulphocyanide, Thiocyanate, or Rhodanide.— $\text{NaSCN} = 81.07$.—Colorl., v. deliq. cryst., or wh. powd.—SOL.: Eas. A., W., acetone.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.050%
Sulphate (SO_3).....	0.010%
Ammonium Comp'ds (NH_3)...	0.003%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%

USES: As of Potass. Sulphocyanate, C.P.

do. Merck—Pure—Cryst.

DESCRIPT. & SOL.: As preced'g.—ACTION: Antispasm.; Sedat.—USES: In arteriosclerosis, urinary gravel, lancing pains in tabs, stubborn migraine, sympathetic neuroses; to reduce blood pressure, in chron. nephritis, & in aortic insufficiency.—*Techn.*, in dyeing, & in printing fabrics.—DOSE: 0.03–0.25 Gm. (½–4 grn.) 3–5 t.p.d. in aq. solut.; in arteriosclerosis, 0.5–3 Gm. (8–45 grn.) p.d.

SODIUM SULPHOCYANIDE—see Sodium Sulphocyanate

SODIUM "SULPHOICHTHYOLATE"—see Sulphoichthyolate (Sodium)

SODIUM SULPHOORTHOTOLUENEAZOBETANAPHTHOLATE—see Orange T

Sodium Sulphoricinate Merck

Clear, yellowish-brown, syrupy liq.; alkaline reaction.—SOL.: A., C., E.; on shaking w. W., liquid foams strongly & forms an emulsion.—SP. GR.: 1.035 at 15° C.—ACTION: Antisep.—USES: *Extern.*, skin dis. Also as solvent f. phenol, iodine, iodoform, pyrogallol, resorcinol, potass. iodide, naphthalene, &c.—Us'y used in form of phenol & sod. sulphoricinate (*q.v.*).

Sodium Sulphosalicylate—Acid

Sodium Salicylsulphonate.— $\text{C}_7\text{H}_5\text{O}_3.\text{SO}_3\text{Na} + 2\text{H}_2\text{O} = 276.17$.—Wh., cryst.—SOL.: Abt 30 W.; alm. insol A., E.—ACTION: Antisep.; Antirheum.; Antipyr.—USES: In acute artic. rheum., neural, chorea, pleurisy, &c., inst. of sod. salicylate; less powerful than latter, but said to be free fr. the after-effects; also *techn.*, as test f. albumin.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.

SODIUM SULPHOVINATE—see Sodium Ethylsulphate

Sodium Sulphydrate

Sodium "Hydrosulphate" or Hydrosulphide.— $\text{NaHS} = 56.07 + \text{aq.}$ —Colorl., hygrosc. cryst., when fresh.—**SOL.:** v. eas. **W.:**—**USES:** Chem. analysis as precipitant of metals.

SODIUM SUPEROXIDE—see Sodium Peroxide

Sodium Sylvate

Sodium Abietinate, or Silvinate.— $\text{C}_{19}\text{H}_{27}\text{O}_2\text{Na} = 310.31$.—Yellow powd.—**SOL.:** W., A.—**USES:** Blenorrrhea (obsolete).—**DOSE:** 0.5–2 Gm. (8–30 grn.) 3–4 t.p.d.

Sodium Tannate Merck

$\text{NaC}_{14}\text{H}_9\text{O}_9 = 344.14$.—Light-gray powd.—**SOL.:** W.—**USES:** Intern., inst. of tannin.—**DOSE:** 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.) ev. 3 hrs in solut.

Sodium Tartrate Merck—C.P.—Cryst.

Normal Sodium Tartrate.— $\text{Na}_2\text{C}_4\text{H}_4\text{O}_6 + 2\text{H}_2\text{O} = 230.08$.—Colorl. cryst.—**SOL.:** Abt 2.5 W.; insol. A.

MAXIMUM OF IMPURITIES

Acidity (as $\text{NaHC}_4\text{H}_4\text{O}_6$)	0.172%
Alkalinity (as Na_2CO_3)	0.053%
Chloride (Cl)	0.003%
Phosphate (P_2O_5)	0.003%
Sulphate (SO_3)	0.010%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%

do. Merck—Gran. & Powd.

DESCRIPTION & SOL.: As preceding.—**ACTION:** Cath.; Refrigerant; Diur.—**USES:** Tastel. substit. f. Rochelle & Epsom salt.—**DOSE:** As *lux.*, 15–30 Gm. (4–8 dr.) once p.d., best in the morning; *diur.*, 1–3 Gm. (15–45 grn.) 2–3 t.p.d.

Sodium Taurocholate Merck

Sodium Tauroglycocholate, B.P.C.—Fr. bile of carnivora.—Yellowish-gray powd.; mixt. sod. taurocholate & glycocholate.—**SOL.:** v. eas. **W.**, A.—**ACTION:** Powerful Cholagogue.—**USES:** Deficient biliary secretion, habitual constip., obesity, & in some forms of intestinal dyspepsia.—**Techn.**, in bacteriology as an addit. to nutrient media; also in test f. meningitis.—**DOSE:** 0.12–0.36 Gm. (2–6 grn.), best in keratinized pills; 4–5 Gm. (60–75 grn.) p.d.

SODIUM TAUROGLYCOCHOLATE—see Sodium Taurocholate

Sodium Tellurate

$\text{Na}_2\text{TeO}_4 = 237.50$.—Wh. powd.—**SOL.:** W.—**ACTION:** Antihidrotic; Antisep.; Antipyr.—**USES:** Night sweats of phth., gastric ulc., rheum., & typhoid fever; also in cancer.—**DOSE:** 0.015–0.05 Gm. ($\frac{1}{4}$ – $\frac{3}{4}$ grn.) in the evening.

Sodium Tellurite

Normal Sodium Tellurite.— $\text{Na}_2\text{TeO}_3 = 221.50$.—Wh. powd.—**SOL.:** W.—**USES:** In 2% solut. f. demonstrating reducing properties of bacteria.

SODIUM TETRABORATE—see Sodium Borate

"Sodium Tetraborate"

Obt'd by fusing a mixt. of eq. parts borax & boric acid.—Transp. glassy masses, or fine powd. (see Antipyronin).—**SOL.:** Eas. **W.**—**ACTION:** Nonirrit. Antisep.—**USES:** Where aqu. solut. boric acid too weak; hot satur. solut. employed in inflammation of middle ear; the powd. in eye dis. (keratitis, conjunctivitis).

"SODIUM TETRABORATE, NEUTRAL"—see Antipyronin; Sodium Borate, "Neutral"

SODIUM TETRABROMPHENOLPHTHALEIN — see Tetrabromphenolphthalein-Sodium

SODIUM TETRACHLORPHENOLPHTHALEIN—see Chlor-Tetragnost

SODIUM TETRAIODOFLUORESCIN—see Erythrosine

SODIUM TETRAVANADATE—see Sodium Divanadate

SODIUM-THEOBROMINE SALICYLATE—see Diuretin

SODIUM THIOANTIMONATE—see Sodium Sulphantimonate

SODIUM THIOCARBONATE—see Sodium Sulphocarbonate

SODIUM THIOCYANATE—see Sodium Sulphocyanate

Sodium Thiophenemonosulphonate

$\text{C}_4\text{H}_3\text{S}.\text{SO}_3\text{Na} + \text{H}_2\text{O} = 204.18$.—Wh. powd.; 33% sulphur.—**SOL.:** W.—**ACTION:** Antisep.—**USES:** Prurigo & o. skin dis. in 5%–10% oint.

Sodium Thiosulphate Merck—Reagent—Cryst.

"Sodium Hyposulphite."— $\text{Na}_2\text{S}_2\text{O}_3 + 5\text{H}_2\text{O} = 248.20$.—Colorl., sltly effloresc. cryst.—**SOL.:** Less than 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Free Alkali	None
Sulphide (S)	0.000%
Sulphate & Sulphite (as SO_3)	Abt 0.020%
Calcium (Ca)	0.005%
Heavy Metals	0.000%

USES: Determ'g halogens, hypochlorites, Fe salts, CrO_3 , chromates, MnO_2 , PbO_2 , permanganates, peroxides, & Cu salts; estim'g V; determ'g S in illuminating gas; group pptnt inst. of H_2S ; detect'g aldehydes, HCN, alkaloïds; also as reag. f. uric acid (Arthaud-Butte), K (Campani); Huysse; Pauly), formaldehyde (Fröhde), quinine & chloral hydrate (Jaworowsky), Co (Rusting), & free acid in alum (Stein).

Sodium Thiosulphate Merck—C.P.—Cryst. or Gran.

"Sodium Hyposulphite."— $\text{Na}_2\text{S}_2\text{O}_3 + 5\text{H}_2\text{O} = 248.20$.—Colorl. sltly effloresc. cryst.—**SOL.:** Less than 1 W.; insol. A.

MAXIMUM OF IMPURITIES

Free Alkali	None
Sulphide (S)	0.005%
Calcium (Ca)	0.020%
Heavy Metals	0.000%

USES: As of the Reagent, above.

Sodium Thiosulphate Merck—C. P.—Dried

$\text{Na}_2\text{S}_2\text{O}_3 = 158.14$.—Wh. powd.—SOL.: Aht 2 W., insol. A.

MAXIMUM OF IMPURITIES

Sulphide (S).....	0.005%
Free Alkali.....	0.010%
Calcium (Ca).....	0.040%
Heavy Metals.....	0.000%

do. Merck—C.P.—(In Sterile, Sealed Ampuls)

Specially intended f. treatment of post-arsenical dermatitis & mercurial stomatitis, & mercurial poisoning. Supplied in two pkgs: Pckge No. 1 cont's: 1 ampul of 0.3 Gm., 1 of 0.45 Gm., & 2 each of 0.6 Gm., 0.9 Gm., 1.2 Gm., & 1.8 Gm., each. Pckge No. 2 cont's 2 ampuls 15 Gm. ea., 1 of 0.9 Gm. ea., & 7 of 1 Gm. ea.—DOSES: *Intraven.*, using 20–30 cc. sterile water, 0.3 Gm. on the 1st day, 0.45 Gm. on the 2d, 0.6 Gm. on the 3d, 0.9 Gm. on the 4th, 1.2 Gm. on the 6th, & 1.8 Gm. on the 8th. In *acute mercurial poisoning*, wash out stomach w. 15 Gm. diss. in 480 cc. water, & follow at once w. *intraven.* inj. of 0.9 Gm. in 20–30 cc. sterile water, & repeat 4 hrs later w. 1 Gm., & 8 hrs later w. 1 Gm., both *intraven.*, then daily inj. of 1 Gm. till clinical symptoms have disapp'd & no Hg found in excreta.

do. Merck—U.S.P. X.—Cryst. or Gran.

"Sodium Hyposulphite"; Sodium Subsulphite; Antichlor.— $\text{Na}_2\text{S}_2\text{O}_3 + 5\text{H}_2\text{O} = 248.20$.—Wh., transp., monocl. prisms or wh. granules; cooling w. bitter after-taste.—SOL.: 0.5 W. at 25° C., insol. A., U.S.P.—MELT.: Aht 50° C. when rapid. heated.—ACTION: Antisep.; Germic.—USES: Malaria, pyemia, biliary calculi, sore mouth, chron. skin dis., dipthh., sarcina ventriculi, diar., typhoid fever, flatulent dyspep. w. chron. constip.; fetid bronchitis & pulmon. gangrene; also *intravenously* in severe dermatitis & stomatitis due to poison'g by As, Bi, & Hg.—*Extern.*, in 5%–10% solut. in chloasma, dental caries, var. eye dis., & ringworm.—DOSE: 0.3–1.5 Gm. (5–23 grn.) sev'l t.p.d.; aver. dose, 1 Gm. (15 grn.) by mouth or *intraven.*—In large doses (10–15 Gm. [2½–4 dr.] p.d.) in chron. fetid bronch., & pulmon. gangrene; in poison'g by As, Bi, & Hg, us'ly 0.45–0.6 Gm. (7½–10 grn.) but also up to 0.75–0.9 Gm. (12–14 grn.) in 5 cc. (75 M) W. (solut. sterilized) ev. other day by *intraven.* inj.—In VETER. MED., in fermentative processes in the stomach and intestines, colic, etc., *cattle*, 50–200 Gm. (1½–6½ oz.); *horses*, 25–100 Gm. (6–25 dr.); *sheep, goats & pigs*, 15–30 Gm. (½–1 oz.); *dogs*, 1–10 Gm. (15–150 grn.).—INCOMP.: Iodine, acids, &c.—CAUT.: Keep well stoppered.

do. Merck—Technical—Cryst., Pea Cryst., Gran., or Powd.

USES: Techn., as "antichlor" in bleach'g & paper-making; as fixer in photogr.; in extract'g silver ores in metallurgy; as mordant in dyeing & printing textiles; manuf. aldehyde green; reducer in chrome dyeing; disinfect'g drinking W.; manuf. leather; bleach'g bone, straw, ivory,

fats, oils, etc.; impregnating candle wicks; manuf. dyes; also for prevent'g fermentation in syrups.

do. Merck—Technical—Dried Powd.

SODIUM TRICHLORCARBOLATE—see Sodium Trichlorphenate

Sodium Trichlorphenate

Sodium Trichlorocarbolate.— $\text{C}_6\text{H}_2\text{Cl}_3.\text{ONa} = 219.43$.—Wh., cryst. powd.—SOL.: Hot W.—ACTION: Antiseptic.

SODIUM TRIPHENYLPARAROSANILINETRISULPHONATE—see Methyl Blue

Sodium α -Truxillate

$\text{Na}_2\text{C}_{18}\text{H}_{14}\text{O}_4 + 10\text{H}_2\text{O} = 520.36$.—Wh. powd.—SOL.: W., A.

Sodium Tungstate Merck—Reagent

$\text{Na}_2\text{WO}_4 + 2\text{H}_2\text{O} = 330.03$.—Colorl. cryst. or wh. cryst. or powd.—SOL.: Aht 4 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.00%
Arsenic (As).....	0.001%
Free Acid.....	None
Free Alkali (as Na_2CO_3).....	0.30%

USES: Prepar'g phosphotungstates & borotungstates; reag. f. peptone, bile pigments, & acetoacetic acid; also f. tannin (Baemes), uric acid, phenols, & tyrosine (Folin-Denis), carbonates & nitrates (Gooch-Kuzirian), glucose (Huizinga), uric acid (Maschke), alkaloids (Scheibler), blood (Selmi), & Ca (Sonstadt).

Sodium Tungstate Merck—C.P.

Sodium Wolframate.— $\text{Na}_2\text{WO}_4 + 2\text{H}_2\text{O} = 330.03$.—Colorl. cryst., or wh. cryst. lumps or powd.—SOL.: Aht 4 W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.050%
Free Acid.....	None
Free Alkali (as Na_2CO_3).....	1.0%

USES: As of the Reagent, above.

do. Merck—Purified**do. Merck—Technical**

Wh., cryst. powd.—SOL.: W.—USES: Fire-proofing & waterproofing fabrics.

Sodium Urate Merck

Uranium Yellow; "Yellow Uranium Oxide."— $\text{Na}_2\text{U}_2\text{O}_7 + 6\text{H}_2\text{O} = 742.50$.—Yellow powd.; aht 72% UO_2 .—SOL.: Acids; insol. W.—USES: Techn., in manuf. yellowish-green fluorescent glass; also in painting on porcelain & in enameling.

Sodium Urate—Acid—B.P.C.

$\text{NaHC}_5\text{H}_2\text{N}_4\text{O}_3 = 190.08$ ($\text{NaHC}_5\text{H}_2\text{O}_3\text{N}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$, B.P.C.).—Wh., gran. powd.—Alm. insol. W.; aht 1200 cold & aht 125 boil'g W.

do. —Neutral—B.P.C.

$\text{Na}_2\text{C}_5\text{H}_2\text{O}_3\text{N}_4 \cdot \text{H}_2\text{O} = 230.09$.—Hard, cryst. nodules or wh. gran. powd.—SOL.: 77 cold & 75 boil'g W., v. stly A. (90%).

Sodium Valerate Merck

$\text{NaC}_5\text{H}_9\text{O}_2 = 124.10$.—Colorl. cryst. or hygroscopic lumps; valerian odor.—SOL.: W., A.—MELT.: 140°C .—ACTION: Sed.; Nerve Stim.—USES: Nervousn., hysteria, mania, &c.—DOSE: 0.06–0.3–0.6 Gm. (1–5–10 grn.).

Sodium *m*-Vanadate Merck

$\text{NaVO}_3 + 4\text{H}_2\text{O} = 194.06$.—Yellowish-wh. cryst. powd.—SOL.: Hot W.—ACTION: Alter.; Anticachectic.—USES: As tonic to nervous system in dis. due to impaired metabolism & deficient oxidation processes; inst. of As in anemia, chlorosis, subacute & chron. rheum., diabetes, neurasth., tuberc., musc. atrophy, myelitis, hysteria, sciatica, gout, etc.—DOSE: 0.001–0.0025 Gm. ($\frac{1}{60}$ – $\frac{1}{24}$ grn.) in 1:500 solut. $\frac{1}{2}$ hr bef. meals, & only 2 or 3 days per week.

Sodium *o*-Vanadate

Sodium Orthovanadate.— $\text{Na}_3\text{VO}_4 + 10\text{H}_2\text{O} = 364.16$.—Wh., cryst. powd.—SOL.: W.—USES: As test f. alkaloids & glucose (Jaworowski), & gallic acid (Lemaire).—*Techn.*, manuf. inks & aniline black.

SODIUM WOLFRAMATE—see Sodium Tungstate

Sodium Xanthogenate

$\text{S}:(\text{OC}_2\text{H}_5)_2\text{SNa} = 144.18$.—Yellowish powd.—SOL.: W., A.—ACTION: Antisep.; Germic.—USES: 1–3 Gm. (15–45 grn.) in aqu. solut. applied to vines as antiphyloxerin.

SODIUM XYLIDINAZOBETANAPHTHOLDISULPHONATE—see Ponceau Red R

Sodium & Ammonium Phosphate Merck—Reagent

Microcosmic Salt.— $\text{NH}_4\text{NaHPO}_4 + 4\text{H}_2\text{O} = 209.15$.—Colorl. cryst. or granules.—SOL.: Abt 5 W.

MAXIMUM OF IMPURITIES

Carbonate.....	0.000%
Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.010%
Arsenic (As).....	0.0003%
Iron (Fe).....	0.000%
Other Heavy Metals.....	0.000%
Potassium Salts.....	Trace

USES: Blowpipe analysis; pptng U, Mg, & Zn; standardizing U soluts.

Sodium & Ammonium Phosphate Merck—C.P.

Microcosmic Salt; Sodium-ammonium-hydrogen Phosphate; Salt of Phosphorus.— $\text{Na}(\text{NH}_4)\text{HPO}_4 + 4\text{H}_2\text{O} = 209.15$.—Colorl., odorl. cryst. or granules.—SOL.: Abt 5 W.; insol. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Nitrate (N_2O_5).....	0.000%
Sulphate (SO_3).....	0.030%
Arsenic (As).....	0.000%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

USES: As of the Reagent, above.

do. Merck

DESCRIPT. & SOL.: As preced'g.

Sodium & Ammonium Sulphate

$\text{Na}_2\text{SO}_4(\text{NH}_4)_2\text{SO}_4 + 4\text{H}_2\text{O} = 346.26$.—Wh. powd.—SOL.: W.

Sodium & Antimony Sulphurated

Hepar Antimony.—Antimony oxide & sulphide w. Na_2S & Na_2SO_4 .—Grayish-brown, fused lumps.—SOL.: Part. W.—USES: *Intern.*, chronic metal poisoning.—*Extern.*, in mouthwashes & lotions in 1% solut.; mixed w. W. to paste as depilatory.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

Sodium & Magnesium Lactate—Soluble

Wh. powd.—SOL.: W.—ACTION: Stomachic; Tonic.

Sodium & Magnesium Phosphate

$\text{NaMgPO}_4 + 9\text{H}_2\text{O} = 304.50$.—Wh., cryst. powd.—SOL.: Part. W.

Sodium & Magnesium Sulphate

$\text{Na}_2\text{SO}_4.\text{MgSO}_4 + 4\text{H}_2\text{O} = 334.50$.—Wh. cryst.—SOL.: W.—ACTION: Lax.—DOSE: 5–15 Gm. (75–240 grn.).

Sodium & Magnesium Tartrate

$\text{Na}_2\text{Mg}(\text{C}_4\text{H}_4\text{O}_6)_2 + 10\text{H}_2\text{O} = 546.58$.—Wh. powd.—SOL.: W.—ACTION: Cathartic.—DOSE: 8–15 Gm. (120–240 grn.).

Sodium & Potassium Bismuthotartrate

A bismuth comp'd of variable composition; the commercial products have been shown to contain from 31% to 73% Bi, hence neither the dose statements given below, as stated in literature, nor the effects to be expected from a given dose, are to be relied upon.—ACTION: Antisyphil.—DOSE: 0.1–0.2–0.3 Gm. ($\frac{1}{2}$ –3–5 grn.) in oily suspens. or in normal solut. NaOH, intramusc., 2–3 t.p. week—see Bismosol.

Sodium & Potassium Carbonate—Powd.

Mixt. sod. & potass. carbonates.—Wh., powd.; fuses more readily than either component.—SOL.: Abt 0.5 W.—USES: Chem. anal. f. decompos. many insol. or diffc. soluble minerals & salts.

Sodium & Potassium Phosphate

$\text{NaKHPO}_4 + 7\text{H}_2\text{O} = 284.26$.—Wh. powd., stable in air.—SOL.: W.

Sodium & Potassium Sulphate

Glaserit.— $\text{Na}_2\text{SO}_4.3\text{K}_2\text{SO}_4 = 664.84$.—Wh. cryst. powd.; during crystallization light rays are emitted.—SOL.: W.

SOFT PARAFFIN—see Petrolatum

SOGADÉ—see Hemidesmus

Soja Beans—B.P.C.

Soy Beans.—Seed of *Glycine Soja*, Sieb. & Zucc. (*G. hispida*, Maxim.), Leguminosæ (B.P.C.).—HABIT: China; Japan.—Whitish or yellowish-green to brownish black roundly ovoid beans, abt 8 mm. ($\frac{1}{2}$ inch) long, 7 mm. (abt $\frac{7}{25}$ inch) broad, & abt 6 mm. (abt $\frac{1}{4}$ inch) thick.—CONSTIT.: Fixed oil (18%); proteids (40%); carbohydrates (22%); urease.—USES:

As food, & f. prepar'g soja bean milk & cheese.
—*Techn.*, as source of urease (used in determ'g urea).

Solanidine

Decomp'n prod. of solanine.— $C_{40}H_{61}NO_2$ = 587.70.—Wh., cryst. need.; rapidly turn yellow.—*SOL.*: A., E.—*MELT.*: $191^\circ C$.

Solanine

$C_{42}H_{75}NO_{15}$ = 833.82 (Hilger).—Physiological act. substce fr. sprouts of *Solanum tuberosum*, L. (Potato), & fr. o. spec. of *S.* (*Solanum dulcamara*, &c.); perf. free fr. solanidine & amorph. bases; classed both as a glucoside (because decomposable into solanidine & glucose), & as an alkaloid (because of its basic properties).—Wh., exceed. fine bitter cryst.—*SOL.*: Sltly hot A.—*ACTION*: Analg.; Nerve Sed.; Antispasm.—*USES*: Neural., vomiting of pregnancy, bronch., spasm. asthma, painful gastric affect., epileptoid tremor, locomotor ataxia, whoop-cough, tetanus, sclerosis of cord; also epilepsy.—*DOSE*: 0.01–0.06 Gm. ($\frac{1}{2}$ –1 grn.) sev'l t.p.d.—*MAX. D.*: 0.1 Gm. ($1\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) p.d.—*ANTID.*: Tannin, emetics, cathartics, stimulants, opium.

Solanine Hydrochloride

$C_{42}H_{75}NO_{15}.HCl$ = 870.29.—Wh., powd.—*SOL.*: W.—*ACTION*, *USES* & *DOSES*: As of solanine; chiefly hypoderm. up to 0.03 Gm. ($\frac{1}{2}$ grn.) in aqu. solut.

Solanum—N.F. V

Bull Nettle; Radical Weed; Sand-Brier; Horse Nettle.—Air-dried ripe fruit of *Solanum carolinense*, L., *Solanaceae*.—*HABIT.*: South America; Florida & o. sections of U. S.—*CONSTIT.*: Solanine; solanidine.—*ACTION*: Antiepileptic; Antiteticanic.—*USES*: Tetanus, convuls., & epilepsy, particul. in convuls. due to albuminuria of pregnancy. Succed. f. alkali bromides.—*DOSE*: 2–8 Gm. (30–120 grn.) as fl'dextr.; aver. dose, 4 Gm. (60 grn.).

Solargentum

Silver-gelatin comp'd; 19%–23% colloidal Ag.—Black, lustr., odorl. granules.—*SOL.*: Eas. W.; insol. A., oils.—*ACTION*: Antisep.; Germicide.—*USES*: As of o. organic silver prep'ns.—*APPL.*: In 1%–25% aqu. soluts.; also used as bougie or supposit.

Solarson

Ammonium Heptinchlorarsinate.— $CH_3(CH_2)_4CCl.CH.AsO.(OH)_2$ = 256.57.—Colorl. liq. (1% solut.); cont. 0.3% As.—*ACTION*: As of arsenicals.—*USES*: Pernicious & secondary anemias, debility, neuralgia, etc.—*DOSE*: 1 cc. (15 M) (= 0.003 Gm. [$\frac{1}{20}$ grn.] As) subcut. p. day.

Soldaini's Solution—Test for Glucose

Solut. 15 Gm. pptd $CuCO_3$ in solut. of 416 Gm. $KHCO_3$ & 1400 cc. W.—Solut. reduced by glucose (also tannin & formic acid), but not by dextrin or cane sugar.

SOLFERINO—see Fuchsine, Dye

SOLID BLUE—see Induline, Water-soluble

SOLID GREEN—see Brilliant Green

SOLID GREEN O—see Malachite Green

SOLID GREEN O, PASTE—see Dinitroresorcinol

Solidago

Sweet-scented Goldenrod.—Lvs & tops of *Solidago odora*, Aiton, *Compositae*.—*HABIT.*: Canada & eastern U. S.—*CONSTIT.*: Volat. oil.—*ACTION*: Antipyr.; Diaphoretic; Carmin.; Styptic.—*USES*: Fever, to relieve colic, & promote menstruation by sweating.—*DOSE*: Fl'dextr., 2–4 cc. (30–60 M).

Soluble Blue

Pure Blue; Water Blue; China Blue.—Salts of triphenylrosaniline & triphenylpararosaniline-trisulphonic acids & of the corresponding disulphonic acids.—Blue powd.—*SOL.*: W.—*ACTION*: Antimalarial, like methylene blue.—*DOSE*: 0.3 Gm. (5 grn.) 3 t.p.d.—*Techn.*, dyeing cotton & silk.

SOLUBLE CREAM OF TARTAR—see Potassium Borotartarate

SOLUBLE GLASS—see Potassium, or Sodium, Silicate

SOLUBLE STARCH—see Starch Soluble

SOLUBLE VERONAL—see Veronal-Sodium

Solution Aluminum Acetate—5%—N.F. V

Burow's Solution.—Abt 5% neutral alumin. acetate, $Al(C_2H_3O_2)_3$.—*DOSES* & *APPL.*: As of the subacetate, but doses one-half greater.

Solution Aluminum Acetotartrate—N.F. IV

Fr. alum 75, $Na_2CO_3.H_2O$ 70, glacial acetic acid 15, & tartaric acid 13.5, to make 100.—Cont. abt 50% dry, so-called aluminum acetotartrate.

Solution Aluminum Subacetate Merck—N.F. V

Abt 8% basic aluminum acetate, $Al(C_2H_3O_2)_2.OH$.—Clear, colorl. liq.—*SP. GR.*: 1.045 at $25^\circ C$.—*MISC.*: W.—*ACTION*: Antisep.; Astring.—*USES*: *Intern.*, diarrh. & dysent.—*Extern.*, as lotion f. putrid wounds & in skin dis. inst. of lead-W.; inj. in gonorrh.; as mouthwash & f. fetid breath.—*Techn.*, as mordant in cotton dyeing, in printing fabrics, & waterproofing tissues; also as embalming fluid.—*DOSE*: 0.2–1 cc. (3–15 M).—*APPL.*: *Extern.*, 1:15; as mouthwash, 1:3:100; & as enema, 1:150.

Solution Ammonium Acetate—U.S.P. X; B.P.

Spirit of Mindererus.—Fr. 1 Gm. ammon. carb. + 20 cc. dil. acetic acid, & cont'g abt 7% $NH_4C_2H_3O_2$, U.S.P.; fr. 5 Gm. ammon. carbonate, 16.25 Gm. acetic acid (33%), & W. to make 100 cc., B.P.—Colorl., neutr. liq.—*ACTION*: Diaph.; Antiphr.; Diur.—*USES*: *Intern.*, fevers, dysmenorrh., mumps, scarlat., &c.—*Extern.*, as collyrium w. laudanum in chem. ophthalmia, & as lotion on contusions, porrigo, & o. skin dis.—Also used as antidote in poison. by formaldehyde.—*DOSE*: 8–30 cc. (2–8 fl. dr.); aver. dose, 15 cc. (4 fl. dr.); children, 2–4 cc. ($\frac{1}{2}$ –1 fl. dr.).

Solution Ammonium Citrate—N.F. IV; B.P.

Fr. 12.5 Gm. citric acid, suffic., NH_4OH , & W. to 100 cc. (the B.P. employs 8.75 Gm. ammon. carbonate inst. of NH_4OH).—**USES:** Fevers, mumps, scarlatina, &c.—**DOSE:** 4–24 cc. (1–6 fl. dr.); aver. dose, 4 cc. (1 fl. dr.).

SOLUTION AMMONIUM "HYDROSULPHIDE"—see Solution Ammonium Sulphide

Solution Ammonium Succinate

Succinated Spirit of Hartshorn.—**AQU.** solut. ammon. succinate, cont'g also some animal oil & oil amber.—**LIGHT-BROWN LIQ.**—**SP. GR.:** 1.050–1.054 at 15° C.—**ACTION:** Antispasm., Antipyr.; Stim.—**USES:** Convulsions in childr., gout, delir. trem., etc.—**DOSE:** Adults, 1.3–2 cc. (20–30 M); childr., 0.3–0.6 cc. (5–10 M).

Solution Ammonium Sulphide Merck—C.P.

Ammonium "Sulphydrate," or "Hydrosulphide," Solution.—**COLOR.** liq., soon becoming yellowish; odor of NH_4OH ; cont's abt 7%–8% sulphidic S, corresp. to abt 15% $(\text{NH}_4)_2\text{S}$; strongly alkali.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.020%
Carbonate (CO_2).....	0.005%
Chloride (Cl).....	0.010%
Antimony (Sb).....	0.000%
Arsenic (As).....	0.005%

USES: Group reagent; detect'g HCN & heavy metals.—**CAUT.:** Keep well stoppered.

do. Merck—Red

Solution "Ammonium Polysulphide."— $(\text{NH}_4)_2\text{S}_x$ —**ABT** 22% S, corresp. to abt 30% $(\text{NH}_4)_2\text{S}_3$.—**Clear, red liq.**; odor of NH_4OH & H_2S .—**MISC.:** W.—**SP. GR.:** Abt 1.10.—**CAUT.:** Keep well stoppered.

SOLUTION AMMONIUM SULPHYDRATE—see Solution Ammonium Sulphide, Yellow

SOLUTION "AMMONIUM POLYSULPHIDE"—see Solution Ammonium Sulphide, Red

SOLUTION AMMONIUM THIOCARBONATE, OR TRI-THIOCARBONATE—see Ammonium Sulphocarbonate, Solution

Solution Arsenic—N.F. IV

Clemens' Solut.—**FR.** As_2O_3 1 Gm., KHCO_3 4.05 Gm., Br 0.5 cc., & W. to 100 cc.—**As content = 1% As_2O_3 .**—**USES:** Chron. skin dis., neural., malaria, & inveterate syph.—**DOSE:** 0.12–0.3 cc. (2–5 M) 1–2 t.p.d.; aver. dose, 0.2 cc. (3 M).

SOLUTION, ARSENICAL—see Solution Potassium Arsenite

Solution Arsenous & Mercuric Iodide—U.S.P. X; B.P.

Donovan's Solut.—1 Gm., each, AsI_3 & HgI_2 in W. to make 100 cc.—**MISC.:** W.—**ACTION:** Alter.; Antiper.—**USES:** Skin dis., venereal eruptions, chron. rheum., night pains in advanced specific dis., &c.—**DOSE:** 0.06–0.6 cc. (1–10 M); aver. dose, 0.1 cc. (1½ M).—**ANTID.:** As of o. arsenicals.—**INCOMP.:** Alkal. & alkalis or their salts.

SOLUTION, BENEDICT'S—see Benedict's Solution

Solution Bismuth—N.F. V

Bism. glycerite 12.5 cc., A. 12.5 cc., & W. to 100 cc.—**DOSE:** 2–8 cc. (30–120 M); aver. dose, 4 cc. (1 fl. dr.).

Solution Bismuth & Ammonium Citrate Merck—50%**do. —B.P. 1914**

Fr. bism. subnit. 7 Gm., citric acid 5.2 Gm., NH_4OH & W. to 100 cc.; cont. not less than 5% Bi_2O_3 .—**ACTION:** Astring.—**USES:** Gastro-intest. disturb.—**DOSE:** 2–4 cc. (30–60 M).

SOLUTION BISMUTH & POTASSIUM IODIDE—see Dragendorff's Solution

SOLUTION, BOULTON'S—see Solution Iodine, Phenolated

SOLUTION BRAIN EXTRACT—see Thromboplastin Solution

Solution Bromine—N.F. IV

Smith's Bromine Solut.—**Br** 8.3 cc., KBr 12.5 Gm., W. to 100 cc.

SOLUTION BROMINE, SMITH'S—see Solution Bromine

SOLUTION, BRONCINER'S—see Ammonium Sulphotellurate

SOLUTION, BUROW'S—see Solution Aluminum Acetate

SOLUTION CADMIUM & POTASSIUM IODIDES—see Marmé's Solution

SOLUTION CALCIUM HYDROXIDE—see under Calcium Hydroxide

SOLUTION CALCIUM OXYSULPHIDE—see Solution Lime, Sulphurated

SOLUTION, CHANNING'S—see Solution Mercury & Potassium Iodide

Solution Chlorinated Soda—U.S.P. X

Labarraque's Solut.; Solut. Sodium Hypochlorite.—**AQU.** solut. cont. NaOCl , NaCl , & some Na_2CO_3 ; not less than 2.5% available Cl.—**Pale-greenish liq.**; Cl odor; disagr. alkali taste.—**ACTION:** Antisep.; Disinf.; Stim.; Resolvent.—**USES:** Malignant scarlat., typhoid fever, dysent., syphilis, scrof., putrid sore throat, glandular enlargements, &c.—**Techn.**, detergent, disinfect., bleaching, &c.—**DOSE:** 1.3–4 cc. (20–60 M) well diluted.—**INJ.**, in gonorr., in 1%–2% solut.; in gargles, 1:100; f. wounds, 2–5:100; in enemas, 1.3–2.6 cc. (20–40 M).

do. Merck—Stronger

Stronger Labarraque's Solution.—4.5%–5% available Cl correspond'g to 1%–1.1% available O, or 4.7%–5.3% sod. hypochlorite.—**PROPERTIES & CHARACTERISTICS:** As of the preced'g.—**USES:** Disinf. dairies, soda fountains, etc.

do.—Surgical.—U.S.P. X

Modified Dakin's Solut.—**An aq. solut. of Cl comp'ds of Na;** cont's 0.45%–0.50% NaOCl = 0.43%–0.48% available Cl.—**Made fr. assayed chlorinated lime, dried sod. phosphate, & W.**—**ACTION:** Antisep.; Bactericide.—**USES:** Surgical wounds, pure or diluted to 1:4.

Solution Chlorine Compound—N.F. V

Chlorine Water.—Fr. 0.7 Gm. KClO_3 , 2 cc. HCl & W. to make 100 cc.—Sltly yellowish-green liq.; disagr. Cl taste; abt 0.35% available Cl.—ACTION: Deodorizer; Antisep.—USES: *Intern.*, disinf. in infectious dis., like dipth., scarlat., typhoid, &c.—*Extern.*, buboes, cancerous sores, abscesses, ulcers, &c.; gargle in smallpox, putrid sore throat, &c.; also as reagr.—DOSE: 1–4 cc. (15–60 M), dil'd w. W.—APPL.: Wash.—ANTID.: Milk & albumin.—CAUT.: Keep in dark-amber bot.

Solution Chromium Nitrate Merck—Abt 30%—C.P.

Abt 30% $\text{Cr}(\text{NO}_3)_3 = 238.24 + \text{aq.}$ —Bluish-green liq. by reflected light, & red by transmitted light.—MISC.: W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.030%
Alkali & Earths.....	0.25%
Aluminum (Al).....	0.010%
Iron (Fe).....	0.005%

SOLUTION, CLEMEN'S—see Solution Arsenic

Solution Coal Tar—N.F. V

Liquor Picis Carbonis; Liquor Carbonis Detergens.—Quillaja tincture 10 Gm. w. 20 Gm. coal-tar & alcoh. to 100 cc.—USES: *Extern.*, in prurigo & o. chron. skin dis.

SOLUTION COPPER TARTRATE, ALKALINE—see Fehling's Solution

Solution Cresol Compound—U.S.P. X

Fr. 50 Gm. cresol, 35 Gm. linseed oil, 1.452 Gm. KOH , 3.911 Gm. NaOH , & W. to make 100 Gm.—USES: Powerful germicide & antisept., espec. useful f. sterilizing instruments, & also the skin, in 1%–3% solut.; as antisept. f. wounds in 0.5%–1% solut.—CAUT.: Applic. to extensive surfaces should be avoided (dangerous if much absorbed).

do. —B.P.C.

Fr. 50 cresol, 35 castor oil, 8 KOH , & W. to make 100 cc.

SOLUTION, DAKIN'S, MODIFIED—see Solution Soda Chlorinated, Surgical

SOLUTION DIGITOXIN CLOETTA, SOLUBLE—see Digalen

SOLUTION, DONOVAN'S—see Solution Arsenous & Mercuric Iodide

Solution Ethyl Nitrite—B.P.

2.5%–3% ethyl nitrite by wt, in 95 absol. A. & 5 G. by vol.—Colorl., or yellowish, transp., inflam. liq.—Apple-like odor & taste.—SP. GR.: 0.823–0.826 at 15.5° C.—USES: As of nitrites.—DOSE: 1–4 cc. (15–60 M).

SOLUTION FERRATIN, AROMATIZED—see Ferratose

SOLUTION FERRIC ACETATE—see Solution Iron Acetate

SOLUTION, FOWLER'S—see Solution Potassium Arsenite

SOLUTION GLYCYLTRYPTOPHAN—see Ferment-diagnosticum

Solution Gold & Arsenic Bromide—N.F. V

Fr. As_2O_3 2.5 Gm., bromauric acid 3.25 Gm., Br 4 Gm. & W. to 1000 cc.—0.6 cc. (10 M) solut. cont. the equiv. of abt 0.002 Gm. ($\frac{1}{32}$ grn.) AuBr_3 , & the equivalent of abt 0.005 Gm. ($\frac{1}{12}$ grn.) AsBr_3 .—DOSE: 0.2–0.3 cc. (3–5 M).

do. —B.P.C.

Fr. 0.45 Gm. As_2O_3 , 0.45 K_2CO_3 , 1.14 Gm. Br, gold leaf 0.15 Gm., & W. to 100 cc.—Ea. 0.6 cc. (10 M) cont. the equiv. of 0.0025 Gm. ($\frac{1}{24}$ grn.) As_2O_3 & abt 0.002 Gm. (abt $\frac{1}{32}$ grn.) AuBr_3 (B.P.C.).—DOSE: 0.12–0.5 cc. (2–8 M).

SOLUTION GUTTA-PERCHA—see Traumaticin

SOLUTION HYDROGEN DIOXIDE—see Hydrogen Peroxide

Solution Iodine, Caustic—N.F. III

Churchill's Iodine Caustic.—25 Gm. I & 50 Gm. KI + 100 cc. W.

Solution Iodine Compound—U.S.P. X

Lugol's Solut.; Diluted Solut. Iodine, B.P.C.—Aqua. solut. of 5% I & 10% KI, w/v, U.S.P.; 5% I & 7.5% KI, w/v, B.P.C.—ACTION: Alterative.—USES: Syph. affect., rheum., & scrof.—DOSE: 0.06–0.6 cc. (1–10 M); aver. dose, 0.2 cc. (3 M).

Solution Iodine, Phenolated—N.F. V

Boulton's Solut.; French Mixture.—Comp. solut. iodine (U.S.P.) 1.5%, phenol 0.6%, & G. 16.5%.

SOLUTION IRON ACETATE—see under Iron Acetate, Ferric

Solution Iron Albuminate—N.F. V

Clear, brown liq.—Abt 0.4% Fe.—ACTION: Tonic, Hematinic.—USES: Anemia, chlorosis, & o. affections where an easily assimilated iron prep. is required.—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose, 8 cc. (2 fl. dr.).

Solution Iron Hypophosphite—N.F. IV

16.5 Gm. ferric hypophos., 21.5 Gm. potass. citrate, 15 cc. G., & W. to 100 cc.—DOSE: Aver., 1 cc. (15 M).

Solution Iron Iodide Merck—Ferrous—N.F. III

Abt 58% anhydr. $\text{FeI}_2 = 309.68$.—Clear, green, odorl. liq.; 1 vol. solut. + 11 vols syrup U.S.P. affords a product identical w. Syrup Ferrous Iodide U.S.P.—SP. GR.: Abt 1.95.

Solution Iron Oxychloride—N.F. IV

Fr. 30 cc. solut. FeCl_3 , 60 cc. NH_4OH , 12.5 cc. G., HCl 3 cc., & W. to make 100 cc.—DOSE: Aver., 2 cc. (30 M).

do. —B.P.C.

Fr. strong solut. FeCl_3 22.5, NH_4OH 35, HCl 2.35, & W. to make 100, all by wt.—DOSE: 0.6–2 cc. (10–30 M).

Solution Iron Oxysulphate—N.F. IV

Fr. Fe_2SO_4 16.5 Gm., HNO_3 16.5 Gm., w. W. to make 100 cc.

Solution Iron Peptonate—N.F. V

Abt 0.65% w/v Fe.—Readily absorbed form of iron peptonate.—USES: Anemia, chlorosis.—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose, 8 cc. (2 fl. dr.).

Solution Iron Peptonate w. Manganese—N.F. V

Abt 0.65% Fe & 0.1% Mn.—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose, 8 cc. (2 fl. dr.).

SOLUTION IRON "PERSULPHATE"—see under Iron Sulphate, Ferric

SOLUTION IRON SUBSULPHATE—see under Iron Sulphate, Ferric, Basic

SOLUTION IRON TERSULPHATE—see under Iron Sulphate, Ferric

Solution Iron & Ammonium Citrate Merck

50% ferric ammon. citrate.—Dark brown liq.—Sp. Gr.: Abt 1.31.—ACTION & USES: As of the salt.

SOLUTION, KLEIN'S—see Klein's Solution

SOLUTION, LABARRAQUE'S—see Solution Chlorinated Soda

SOLUTION LEAD SUBACETATE—see under Lead Subacetate

Solution Lime Chlorinated—B.P.

Fr. 1 chlorinated lime & 10 W. by shaking & filtering.—Abt 2%–3% available Cl.

SOLUTION LIME—see Calcium Hydroxide, Solution

Solution Lime Sulphurated—N.F. V

Vlemminck's Solut.; Solut. Calcium Oxysulphide.—By boil. 16.5 freshly slaked lime w. 25 sublimed sulphur & W. to make 100 (N.F.); by boil. 2 lime & 5 sublimed sulphur w. W. to 100 w/v, B.P.C.—Clear, brown liq.—ACTION: Antisep.—USES: Psoriasis & o. skin dis.; in dilut'n w. 1 or more parts W. as paint f. scabies.

SOLUTION, LUGOL'S—see Solution Iodine Compound

SOLUTION, MAGENDIE'S—see Solution Morphine Hypodermic

Solution Magnesium Bicarbonate—B.P.

Fluid Magnesia.—Fr. 40 Gm. MgSO_4 , 50 Gm. Na_2CO_3 , & 400 cc. W. & excess CO_2 gas.—Abt 2% MgCO_3 .—ACTION: Antacid.; Lax.—DOSE: 30–60 cc. (1–2 fl. oz.).

Solution Magnesium Sulphate—B.P.C.

Fr. MgSO_4 48.5 Gm., dil. H_2SO_4 12.5 cc., & W. to 100 cc.—DOSE: 15–30 cc. ($\frac{1}{2}$ –1 fl. oz.).

do. Effervescent—N.F. IV

Fr. MgSO_4 25 Gm., citric acid 4 Gm., syrup citric acid 60 cc., KHCO_3 2.5 Gm., & W. to 350 cc., the whole to be taken at one dose.

SOLUTION, MARMÉ'S—see Marmé's Solution

SOLUTION, MAYER'S—see Mayer's Solution

Solution Mercury Bichloride—B.P.

Aqu. solut. cont'g 0.1% HgCl_2 .—Clear, colorl. liq.—DOSE: 2–4 cc. (30–60 M).

SOLUTION MERCURY & POTASSIUM IODIDE—See Mayer's, & Thoulet's, Solutions

Solution Mercury & Potassium Iodide—N.F. IV

Channing's Solut.; Solut. Potassium Iodohydrargyrate.—1 Gm. HgI_2 & 0.8 Gm. KI in W. to make 100 cc.—DOSE: 0.06–0.3 cc. (1–5 M); aver. dose, 0.2 cc. (3 M).

SOLUTION, MONSEL'S—see under Iron Sulphate, Ferric, Basic

Solution Morphine Acetate—B.P.

1 Gm. morphine acetate, 2 cc. dil. acetic acid, 25 cc. 90% A. & W. to 100 cc.—DOSE: 0.6–4 cc. (10–60 M).

Solution Morphine Hydrochloride—B.P.

1 Gm. morphine hydrochlor., 2 cc. dil. HCl, 25 cc. 90% A. & W. to 100 cc.—DOSE: 0.6–4 cc. (10–60 M).

Solution Morphine Hypodermic—N.F. III

Magendie's Solut.—Morphine sulphate 3.3 Gm., salicylic acid 0.1 Gm., W. to 100 cc.—DOSE: 0.3 cc. (5 M).

Solution Morphine Tartrate—B.P.

1 Gm. morphine tartrate, 25 cc. 90% A. & W. to 100 cc.—DOSE: 0.6–4 cc. (10–60 M).

SOLUTION, NÆGELI'S—see under Zinc Chloroiodide

SOLUTION NITROGLYCERIN—see Spirit Glyceryl Trinitrate

Solution Pancreatin—N.F. V

1.75% pancreatin, 5% NaHCO_3 w/v.—Misc.: W.—ACTION: Amyolytic; Proteolytic; Emulsifiant.—USES: Dyspeps., gastric catarrh, & diabetes.—DOSE: 4–15 cc. (1–4 fl. dr.); aver. dose, 4 cc. (1 fl. dr.).

do. —B.P.C.

16.5 cc. glycerin of pancreatin, 3.5 Gm. NaHCO_3 , 5 cc. G., 15 cc. A. (90%), & W. to 100 cc.—USES: Prep. Peptonized milk (1 cc. digests 32 cc. milk), & partially digested foods; *intern.* in dyssep.—DOSE: 2–8 cc. (30–120 M).

SOLUTION, PEARSON'S—see Sodium Arsenate, Dilute Solution

Solution Pepsin—N.F. V

5% pepsin glycerite, 1% HCl, & 31.5% G.—DOSE: 4–12 cc. (1–3 fl. dr.); aver. dose, 8 cc. (2 fl. dr.).

SOLUTION PHLOROGLUCIN-VANILLIN—see Guenzburg's Solution

Solution Phosphorus—N.F. V

Thompson's Solut. Phosphorus.—Fr. 0.07 Gm. P, 0.5 cc. spirit peppermint, 64.5 cc. G., & absol. A. to 100 cc.—DOSE: 0.3–1 cc. (5–15 M).

SOLUTION POTASSA—see under Potassium Hydroxide

Solution Potassium Arsenite Merck—U.S.P. X

Fowler's Solut.; Arsenical Solut., B.P.—1% As_2O_3 .—**SOL.**: W., A.—**ACTION**: Alter.; Antiper.; Tonic.—**USES**: Chorea, skin dis., anemia, chlorosis, intermit. fever, malarial affect., periodic neural., chronic rheum., &c. Never give on an empty stomach.—**DOSE**: 0.06–0.3 cc. (1–5 M); aver. dose, 0.2 cc. (3 M).—**INCOMP.**: Alkaloidal salts, hypophosphites, iodides & sulphites, in acid solut.; salts of Fe, Al, Sb, Ba, Ca, Cr, Cu, Pb, Hg, Ag, & Zn in neutral solutions; tannic acid.—**ANTID.**: Emetics, stomach siphon, freshly pptd. $\text{Fe}(\text{OH})_3$, or $\text{Fe}(\text{OH})_3$ w. MgO ; saccharated ferric oxide.—**CAUT.**: Poison!

Solution Potassium Citrate—U.S.P. X

Fr. KHCO_3 8 Gm., citric acid 6 Gm., & W. to 100 cc.—Not less than 8% potass. citrate.—**DOSE**: 4–25 cc. (1–6 fl. dr.); aver. dose, 15 cc. (4 fl. dr.).

SOLUTION POTASSIUM HYDROXIDE—see under Potassium Hydroxide

SOLUTION POTASSIUM IODOHYDRARGYRATE—see Solution Mercury & Potassium Iodide

Solution Potassium Permanganate—B.P.

1% KMnO_4 , w/v.—**USES**: Wash f. ulcers, & as gargle (w. 40–80 W.).

Solution Rennet—B.P.C.

Liquor Seriparus.—Fr. 30% rennet, 10% A. (90%), 10% sherry, 10% G., 10% NaCl , 0.31% lactic acid, & chloroform water to 100.—**USES**: Curdling milk, 4–8 cc. (60–120 M) being added to 600 cc. (20 fl. oz.) milk, heat'g the mixt. to 35°–40° C., & straining after curdling is complete.

SOLUTION, ROHRBACH'S—see Mercury & Barium Iodide Solution

SOLUTION SALT, NORMAL—see Solution Sodium Chloride, Physiological

SOLUTION SODA—see Sodium Hydroxide, Solution

SOLUTION SODIUM ARSENATE, DILUTE—see under Sodium Arsenate

Solution Sodium Chloride, Physiological—U.S.P. X

Normal Salt Solution.—Fr. 0.85 Gm. NaCl & W. to 100 cc. sterilized under pressure at 115° C. f. 30 min.—**USES**: Solvent f. substs. to be given by subcut., intramusc., or intraven. inj.; also f. intraven. infusions.—**CAUT.**: Use freshly made solut.; when older than 24 hours, solut. should not be used f. intraven. inj.

Solution Sodium Citrate—N.F. V

Fr. citric acid 2 Gm., NaHCO_3 2.5 Gm., & W. 100 cc.—**DOSE**: Aver., 8 cc. (120 M).

SOLUTION SODIUM HYPOCHLORITE—see Solution Chlorinated Soda

Solution Sodium Phosphate Compound—N.F. V

Fr. Na_2HPO_4 100 Gm., citric acid 13 Gm., G. 15 cc. & W. to 100 cc.—**ACTION**: Lax.—**DOSE**: Aver., 8 cc. (2 fl. dr.).

SOLUTION STROPHANTHIN-K—see Kombéin

Solution Strychnine Hydrochloride—B.P.

1 Gm. strychn. hydrochlor. w. 25 cc. 90% A. & W. to 100 cc.—**DOSE**: 0.12–0.5 cc. (2–8 M).

SOLUTION SULPHUR DIOXIDE—see Acid Sulphurous

Solution Tar, Alkaline—N.F. IV

Fr. tar 25 Gm., KOH 12.5 Gm., & W. to 100 cc.—**USES**: Skin dis.

SOLUTION THIOSINAMINE & SODIUM SALICYLATE—see Fibrolysin

SOLUTION TRINITRIN—see Spirit Glyceryl Trinitrate

SOLUTION, TROMMSDORFF'S—see Zinc Iodide-Starch Solution

SOLUTION, VLEMINCKX—see Solution Lime Sulphurated

Solution Zinc Chloride Merck—U.S.P. X

48.5%–52% ZnCl_2 .—Fr. gran. Zn 24, HCl 84, HNO_3 1.2, pptd ZnCO_3 1.2, & W. to 100, all by wt.—Clear, colorl., astring., acid liq.—**SP. GR.**: Abt 1.548 at 25° C.—**ACTION**: Disinf.; Antisep.; Astring.—**USES**: *Extern.*, dress. f. ulc., cancer, & gangr. sores; & as inj., diluted in urethritis & vaginitis.

do. —B.P.

Fr. gran. Zn 4 Gm., HCl 11 cc., & W., evaporated down to 10.—Colorl., astring., sweetish liq.—**SP. GR.**: 1.53 at 15.5° C.

Solution Zinc & Aluminum Compound—N.F. IV

Fr. 20 Gm. ZnSO_4 , 20 Gm. $\text{Al}_2(\text{SO}_4)_3$, 0.06 Gm. betanaphthol, & 0.2 cc. oil thyme, w. W. to 100 cc.

Solution Zinc & Iron Compound—N.F. IV

Fr. 20 Gm. ZnSO_4 , 20 Gm. FeSO_4 , 6.5 Gm. CuSO_4 , 0.06 Gm. betanaphthol, 0.2 cc. oil thyme, 0.4 cc. H_3PO_2 , & W. to 100 cc.

Somnos

An elix. ea. 4 fl. dr. (15 cc.) of which cont. 1.2 Gm. (18 grn.) of a 73% glycerin-solut. of trichlorethidene propenyl ether ($\text{CCl}_3\text{CHO}[\text{OH}]\text{CH}_2\text{CH}_2\text{CH}_3$), a condens. prod. of chloral & glycerin.—**ACTION**: Hypn.—**DOSE**: 15–30 cc. (4–8 fl. dr.).

Soneryl

Butylethylbarbituric Acid.—Wh., cryst. powd.—**SOL.**: 300 W.—**ACTION**: Hypnot.; stated to be 3 times more powerful, but also 3 times more toxic, than barbital.—**DOSE**: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.); *subcut.*, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.).

Sonnenschein's Solution—Test for Alkaloids

(1) Aqu. solut. phosphomolybdic acid.—Ppts alkaloids & albumin in aqu. solut.—(2) Solut. cerosoceric oxide in H_2SO_4 . Gives color reactions w. alkaloids in conc. H_2SO_4 .

Sophol

Silver Methylenenucleinate.—Silver comp'd of formaldehydenucleinic acid; splits off formaldehyde.—Yellowish powd.; metal. taste; 20% Ag.—**SOL.**: Eas. W.; insol. A., E.—**ACTION**:

Antisep.; Bactericide.—**USES:** Gonorr. & ophthalmoblenorrh.—**APPL.:** In 2%–5% soluts.

SOPHORINE—see Cytisine

Sorbin

Sorbose; Sorbinose.— $C_6H_{12}O_6 = 180.13$.—Non-fermentable sugar fr. ripe berries of *Sorbus Aucuparia*, L. (European Mountain-ash), by fermentation.—**Colorl.**, rhombic cryst.—**SOL.:** Eas. W.

SORBINOSE—see Sorbin

Sorbit

$C_6H_8(OH)_6 + \frac{1}{2}H_2O = 191.15$.—Hexavalent A. (hexit) isomeric w. mannit & dulcit (melampyrit), & obt'd fr. fruit of *Sorbus Aucuparia*, L. (European Mountain-ash).—**Colorl.** cryst.—**SOL.:** Hot A.; eas. W.—**MELT.:** $110^\circ C$. (when anhydrous).

SORBOSE—see Sorbin

SUDAN COFFEE—see Kola

SOUR-SPINE—see Barberry Bark

SOUTHERNWOOD—see *Artemisia Abrotanum*

SOW-BERRY—see Barberry Bark

SOY BEANS—see Soja Beans

Soziodole-Aluminum

Aluminum Diiodoparaphenolsulphonate.— $(C_6H_2I_2.OH.SO_3)_3Al + 2H_2O = 1337.89$.—**Colorl.** needles; 2.75% Al.—**SOL.:** v. eas. A. & W.

Soziodole-Ammonium

Ammonium Soziodolate; Ammonium Diiodoparaphenolsulphonate.— $C_6H_2I_2.OH.SO_3NH_4 = 442.99$.—Large, shining, nacreous, six-sided prisms.—**SOL.:** 25 W.; sltly A.—**ACTION & USES:** As of the sodium salt (*q.v.*).

Soziodole-Barium

Barium Soziodolate.—**Colorl.** need.—**SOL.:** v. sltly W., & A.

Soziodole-Lead

Lead Soziodolate.—**Colorl.**, cryst. need.; sens. to light; 19.5% Pb.—**SOL.:** Slty cold W., but eas. on add. of acetic acid.

Soziodole-Lithium

Lithium Soziodolate.—**Cryst.** need. or scales.—**SOL.:** v. eas. W.—**USES:** Artic. rheumat., inst. of salicylates.

Soziodole-Magnesium

Magnesium Soziodolate.—**Colorl.**, cryst. need. w. 8 molec. W. of cryst.—**SOL.:** Eas. W. & A.

Soziodole-Mercury

Mercurous Diiodoparaphenolsulphonate; Mercury Soziodolate.— $HgC_6H_2I_2OSO_3 = 624.55$ (Fischer).—Orange-yellow, v. fine powd.; 32% Hg; 41% I.—**SOL.:** In solut. NaCl or KI; insol. W., A., E., G.—**ACTION:** Antisyph.; Antiseptic; Alternative.—**USES:** Syph. erupt. & ulcers, applied pure; in 5%–10% solut. in ozena, ulcers, lupus, & skin dis.; 1% oint. in ulcer of leg; 5% oint. in syphil. ulcers; also as

applic. to enlarged glands, parasitic skin dis., intertrigo, excoriations, rhagades, eczema, & dis. of joints.—*Subcut.*, in 8% solut. w. twice its wt of KI by inj. in constitutional syph. in the gluteal region. The injections are painless if a 4%–5% cocaine hydrochlor. solut. is injected into the part 6 min. bef. inj. the soziodolate.—**MAX. D.**, per os, 0.05 Gm. ($\frac{3}{4}$ grn.) single; 0.15 Gm. (2½ grn.) p. day.—**CAUT.:** Poison! The prep. is also mkt'd in tablets ea. cont. 0.0033 Gm. Hg, under the name *Meriodin*.

Soziodole-Potassium

Potassium Soziodolate; Potassium Diiodoparaphenolsulphonate.— $C_6H_2I_2.OH.SO_3K = 464.05$.—Wh. cryst., odorl. powd.; 52.8% I; 20% phenol.—**SOL.:** 50 W., 500 A.; insol. E.—**ACTION:** Antisep.; Bactericidal.—**USES:** *Extern.*, 10% mixt. w. talcum, or 5%–10% oint. suffice f. burns, cuts, bruises, abrasions, scalds, acne, exanthema, mycosis, scabies, ecz., herpes tonsurans, impetigo, syph. ulc., diphth.; pure or 50% mixt. w. talcum or boric acid in ulc. adenitis, erysipelas, ozena, otitis, & rhinitis; inj. f. gonorr. The soziodole salts quickly destroy the Klebs-Loeffler bacillus of diphth., & a 2.5% solut. is suffic. strong to kill *Acarus scabiei* in 25 min.—**INCOMP.:** Mineral acids, $FeCl_3$, Ag salts, &c. (Strong H_2SO_4 or heat drives off I vapor).

Soziodole-Sodium

Sodium Diiodoparaphenolsulphonate; Sodium Soziodolate.— $C_6H_2I_2.OH.SO_3Na + 2H_2O = 483.99$.—**Colorl.** cryst.—**SOL.:** 15 W., 17 A., abt 6 G.; insol. E.—**ACTION:** Alter.; Antisep.; Antipyr.—**USES:** *Intern.* as intest. antisep., & in diabetes.—*Extern.*, in diphth. (the fine powd. blown into nose & throat), cervical catarrh, lupus, tuberculous of nose & throat, chron. metritis, periostitis, tuberculous & varicose ulcers, hard & soft chancre; as insuff. in acute & chron. laryngitis, & in 25% triturat. w. milk sugar in chron. pharyngitis, rhinitis, & rhinopharyngitis, syph., cystitis, whoop-cough, &c.—**Dose:** 1–3 Gm. (15–45 grn.) per day. In whoop-cough, 0.2 Gm. (3 grn.) per day, blown into nose.—**APPL.:** 10% oint. w. lanum; 1% solut. in cystitis; 1%–6% solut. in conjunctivitis; 3%–6% solut., or 2% solut. in paraffin, in gonorr. (in altern. w. zinc sulphate); as 6%–8% solut. in conjunct. catarrh, blennorr. neonator., & as mouth-wash; 5%–10% solut. as gargle & moist dressing; also in stomatitis, & acute & purul. conjunctivitis.

Soziodole-Zinc

Zinc Soziodolate; Zinc Diiodoparaphenolsulphonate.— $Zn(C_6H_2I_2[OH]SO_3)_2 + 6H_2O = 1023.37$.—**Colorl.** need.—**SOL.:** 25 W., 3 A., 5 G.; insol. E.—**ACTION:** Antisep.; Astring.—**USES:** Gonorr., catarrh of nasal & pharyngeal muc. membr., skin dis., &c.—**APPL.:** For vesical irrigations, & wash in leucorr., gonorr., & urethritis, 1%–2% solut.; in stomatitis, endometritis, & vaginismus, 5%–7% solut.; in ecz., impetigo, varicose ulcer, & chancre, 5%–10% oint.; in purulent otitis, otorrh., & hypertrophic rhinitis, 1%–2% triturations w. talcum, milk sugar, or boric acid; in dry & tuberculous lar-

ngitis, chron. & purulent otitis media, otorrh., ozena, chron. pharyngitis, pruritus, atroph. rhinitis, acute coryza, tuberculous ulcer, &c., 7%-10%-20% mixt.; as gargle, a 1% or 2% solut.

SPANISH CHAMOMILE—see Pyrethrum

SPANISH FLY—see Cantharides

SPANISH HOP—see Origanum

SPANISH PELLITORY—see Pyrethrum

SPANISH SAFFRON—see Saffron

SPANISH TEA—see Chenopodium

SPANISH WHITE—see Bismuth Subnitrate

SPARK METAL—see Pyrophorous Alloy

Sparteine Merck—Alkaloid

Lupinidine.— $C_{15}H_{26}N_2 = 234.30$.—Alkaloid fr. tops of Spartium scoparium (Sarthamnus scoparius) (Broom).—Yellowish, syrupy liq.—SOL.: A., C., E.; sitly W.; & insol. B., benzin.—BOIL.: Abt $311^\circ C$.—SP. GR.: 1.015–1.020 at $20^\circ C$.—ACTION: Heart Stim.; Diur.—USES: The salts (chiefly sulphate, *q.v.*) only are in actual use.—ANTID.: Emetics & cathartics; tannin, stomach siphon, brandy, coffee, opium, &c.—Same treatment f. poison'g by its salts.—CAUT.: Narcotic poison!

Sparteine Hydriodide

$C_{15}H_{26}N_2.HI = 362.23$.—Colorl. needles.—SOL.: W., A.—ACTION, USES, & DOSES: As of the sulphate.

Sparteine Hydrochloride Merck

$C_{15}H_{26}N_2.2HCl = 307.24$.—Colorl. cryst.—SOL.: W., A.—ACTION, USES, DOSES, &c.: As of the sulphate.

SPARTEINE PERIODIDE—see Sparteine Triiodide

Sparteine Sulphate Merck—U.S.P. IX—Cryst. or Powd.

$C_{15}H_{26}N_2.H_2SO_4 + 5H_2O = 422.46$.—Colorl., odorl., hygrosc. cryst., or cryst. powd., bitterish taste.—SOL.: 1.1 W., 3 A. at $25^\circ C$, & insol. C., E., U.S.P.—MELT.: When anhydrous, at 150° – $152^\circ C$, B.P.C.—ACTION: Heart Stim.; Diur.—USES: To increase frequency of pulse & respiration, stimulate heart & central nervous syst., relieve weak condit. due to heart dis., in irregular & retarded pulse, chloroform syncope, check pulmonary edema & dropsy. Best employed where digitalis fails or is contraindic. Most commonly used salt of sparteine.—DOSE: 0.008–0.03 Gm. ($\frac{1}{8}$ – $\frac{1}{2}$ grn.); aver. dose, 0.01 Gm. ($\frac{1}{2}$ grn.); 0.06–0.12 Gm. (1–2 grn.) or more, B.P.C.—MAX. D.: Variously stated, *e.g.*, 0.03 Gm. ($\frac{1}{2}$ grn.) single, 0.12 Gm. (2 grn.) p.d.; 0.1 Gm. ($\frac{1}{2}$ grn.) single & 0.5 Gm. (8 grn.) p.d. in cardiac irregularities & pneumonia; 0.12 Gm. (2 grn.) per os or 0.1 Gm. ($\frac{1}{2}$ grn.) subcut.; as diur., 0.06–0.12 Gm. (1–2 grn.) subcut. ev. 3–6 hrs; as heart tonic, 0.06–0.12 Gm. (1–2 grn.) ev. 2–6 hrs; accord. to the B.P.C. as much as 0.8 Gm. (12 grn.) have been given per dose.—APPL.: *Extern.*, in 1:200 solut.

to reduce temp. & promote cure in erysip., small-pox, scarlet fever, & measles.—In VETER. MED., as cardiac stimulant & diuret.; *horses*, 1–4 Gm. (15–60 grn.); *dogs*, 0.1–0.5 Gm. ($\frac{1}{4}$ –8 grn.).

Sparteine Triiodide

Sparteine Periodide.— $C_{15}H_{26}N_2.I_2.HI = 616.07$.—Black powd.—SOL.: A.

Spearmint—U.S.P. X

Mint.—Dried lvs & flowering tops of *Mentha spicata* L. (*M. viridis*, L.), Labiatæ.—HABIT.: Europe; Asia; widely cultivated in U. S. & elsewhere.—CONSTIT.: Vol. oil (chiefly).—ACTION: Carminative.—USES: As of peppermint.—DOSE: Aver., 4 Gm. (1 dr.).—Spirit (1% plant & 10% oil), aver. 2 cc. (30 M).

SPEEDWELL—see Veronica

Spermaceti—U.S.P. X; B.P.

Cetaceum.—Peculiar, concrete, fatty substce fr. head of Physeter (Catodon) macrocephalus, L. (sperm whale), Physeteridæ, Cetacea.—HABIT.: Atlantic, Pacific, & Indian Oceans.—Pearly-wh., semi-transp. masses; foliated structure; alm. odorl. & tastel., but becomes yellow & rancid on prolonged exposure.—SOL.: C., E., CS₂, oils, boil. A., sitly cold petrol. benzin, insol. W. & alm. insol. cold A., U.S.P.—MELT.: 42° – $50^\circ C$, U.S.P.—SP. GR.: 0.938–0.944 at $25^\circ C$, U.S.P.; (0.950–0.960 at $15.5^\circ C$, B.P.).—ACID No.: Not over 1.00.—SAPON. No.: 125–136.—I-No.: 3–4.4.—CONSTIT.: Chiefly cetin (cetyl plamitate, a comp'd of cetyllic A. w. plamitic acid); also esters of laurinic, stearic, & myristic acids w. o. higher alcohols (lethal, methal, & stethal), & w. G.—ACTION: Demulc.; Emoll.—USES: As a base f. oints, cerates, &c., & as emuls. w. egg-yolk or expr. oil almond.—*Techn.*, in manuf. of candles, soaps, cosmetics, laundry wax; finishing & lustering linens.

Spermine Poehl

2% sterile solut. of the hydrochloride of the base spermine, $C_8H_{14}N_2$, found in human testes & o. glands, & intended f. subcut. inj.—Spermine acts uniformly on the whole nervous system as a powerful tonic & stim., & is indicated in all dis. caused by autointoxication, *e.g.*, neurasthenia, tabes dorsalis, diab., syph., phth., pneum., typhoid, scrof., cachexias, marasmus, etc.—DOSE: One inj. of 1.5 cc. (23 M) daily until 10–12 injections are given, then at greater intervals.

Spermine Essence Poehl

A 4% arom. alcoh. solut. of spermine & NaCl double salt.—DOSE: 0.6–2 cc. (10–30 M) w. an alkaline mineral water ev. morn.—Acts more slowly than injections.

Spialerite—Mineral

Zinc Blende.—COMPOS.: ZnS w. isomorph. FeS.—CRYST. SYST.: Reg. tetrah. hemih.—LUSTER: Resinous to submetallic.—COLOR: Yellow, brown, black, red, green, wh.—STREAK: Wh., yellow, brown.—CLEAV.: Perfect dodecahedral.—Brittle.—HARDN.: 3.5–4.—SP. GR.: 3.9–4.1.—USES: Important zinc ore.

SPICEBERRY—see *Aralia*

Spiegel's Solution—Test for Nitric Acid

Solut. diphenylamine in conc. H_2SO_4 .—Affords w. HNO_3 & o. oxidizers a fine blue color.

Spiegler's Solution—Test f. Albumin

(1): 8 Gm. HgCl_2 , 4 Gm. tartaric acid, 20 Gm. cane sugar, 200 cc. W.—(2): Tartaric acid 20 Gm., HgCl_2 40 Gm., NaCl 50 Gm., glycerin 100 Gm., W. 1000 Gm.—An albumin solut. floated on the test solut. develops a wh. zone of pptd albumin. Exceedingly delicate; sensitiveness, 1:250,000.

Spiegler-Jolle's Solution—Test for Albumin

2 Gm. HgCl_2 , 4 Gm. succinic acid, 4 Gm. NaCl , W. to make 100 cc.

Spigelia—U.S.P. IX

Pinkroot; Indian, or Carolina, or Maryland, Pink; Wormgrass.—Dried rhizome & roots of *Spigelia marilandica*, L., Loganiaceae.—HABIT.: North America (N. Jersey to Florida & west to Wisconsin).—CONSTIT.: Spigeline; resin; tannin; bitter principle; volat. oil.—ACTION: Narc.; Anthelm.; Mydriat.—USES: To expel ascarides; given w. cathartics to prevent narc. effects.—DOSES: Adults, 2–8 Gm. (30–120 grn.); aver. dose, 4 Gm. (1 dr.); children, 0.6–1.3 Gm. (10–20 grn.), us'ly w. some cath., e.g., senna.—Fl'dextr., 2–6 cc. (30–90 M); aver., 4 cc. (60 M).

Spigeline

Highly toxic active principle fr. *spigelia marilandica*.—ACTION: Active Anthelmintic, especially in ascarides.

SPIGNET, or SPIKENARD—see *Aralia*

SPINDLE TREE—see *Euonymus*

Spirit Acid Formic—N.F. V

Spirit Ants.—4% formic acid, 22.5% W., & A. = abt 0.9 formic acid; (the spirit of the P.G. cont. 1 formic acid, 14 A., & 5 W., = abt 1% formic acid).—ACTION: Rubef.—USES: *Intern.*, as diffusible stimulant; chiefly as counterirritant in painful local affect. To develop redness of skin apply undiluted.—DOSE: Aver., 4 cc. (60 M).

Spirit Ammonia Merck—U.S.P. VIII

Spirit of Hartshorn.—10% by wt of NH_3 in A.—Colorl., inflam. liq.; strong odor of ammon.—SOL.: W., A.—SP. GR.: Abt 0.810.—ACTION: Stim.; Antispasm.—USES: *Intern.*, hyst., flatulent colic, nervous debility, &c.—*Extern.*, bruises. Also pharm., in prepar. decolorized tinct. iodine. Better adapted as a vesicant than ammonia water.—DOSE: 0.6–2 cc. (10–30 M).

Spirit Ammonia Anisated—N.F. V

3% anethol & 20% NH_4OH in A.—DOSE: 0.6–2 cc. (10–30 M).

Spirit Ammonia Aromatic Merck—U.S.P. X

Made fr. ammon. carbonate & NH_4OH w. oils of lemon, lavender & nutmeg, W., & abt 70% A., & cont's abt 2.2% NH_3 (the B.P. cont's approx. 2.5% ammon. carbonate & approx. 5% strong NH_4OH w. oils of nutmeg & lemon, W. & A.).—Sltly yellow liq.; becomes darker w. age.—SP. GR.: 0.900 at 25° C.—ACTION: Stim.; Antispasm.; Antacid.—USES: Inebriety, hyst., nerv. debil., sick headache, flat., colic, &c.—DOSE: 4–6 cc. (60–90 M) single, & 1.3–2.5 cc. (20–40 M) sev'l times per day; aver. dose 2 cc. (30 M).

Spirit Ammonia Fetid—B.P.

Asafetida, 7.5% w/v, strong NH_4OH 10%, & A. (90%).—ACTION: Nervine; Stim.; Antispasm.—USES: Hysteria.—DOSE: 1.3–2.5 cc. (20–40 M) repeated, or 4–6 cc. (60–90 M) single, largely diluted.

SPIRIT ANTS—see Spirit Acid Formic

Spirit Camphor—U.S.P. X; B.P.

10% w/v.—ACTION: Anod.; Antispasm.; Stim.—USES: Chiefly extern. in liniments in rheum. & neuralg., on bandages in atonic ulcers & frostbite, & as addit. to mouth-washes, gargles, etc.—DOSE: 0.3–1.3 cc. (5–20 M); aver. dose, 1 cc. (15 M).

Spirit Chloroform Merck—U.S.P. X

6% by vol. C. (5% B.P.).—DOSE: 0.3–1.3 cc. (5–20 M) repeatedly, or 2–2.5 cc. (30–40 M) single; aver. dose, 2 cc. (30 M).

Spirit Ether—N.F. V; B.P.

Hoffmann's Anodyne or Drops.—32.5 E. & A. to 100; (1 E. & 2 A., B.P.).—Colorl., volat. liq.—ACTION: Anod.; Stim.; Antispasm.—USES: Nerv. affect., dysmenor., renal colic, angina pect., neural., &c.—DOSE: 4–6 cc. (60–90 M) single, or 1.3–2.5 cc. (20–40 M) repeatedly; aver. dose, 4 cc. (60 M).

Spirit Ether Compound Merck—N.F. V

Hoffmann's Anodyne.—32.5% E., 65% A. & 2.5% ethereal oil, by vol.—ACTION: Stim.; Antispasm.; Anod.; Hypn.—USES: Nerv. affect., hyst., insomnia, neural., &c.; & nausea fr. opium.—DOSE: 0.6–6 cc. (10–90 M) in sweet W.; aver. dose, 4 cc. (60 M).

Spirit Ether Nitrous Merck—U.S.P. X

Spirit Ethyl Nitrate; Sweet Spirit of Niter.—Alcoh. solut. 3.5%–4.5% $\text{NO}.\text{OC}_2\text{H}_5$, U.S.P.—Pale, straw-colored liq.; fragr., pung. odor; burning taste.—SP. GR.: Not over 0.823 at 25° C., U.S.P.—SOL.: W., A.—ACTION: Diaph.; Diur.; Antipyr.; Stim.; Antispasm.—USES: Fevers, dropsy, dis. of gen.-urin. org., flatulent colic, nausea, colds.—DOSE: 1–4 cc. (15–60 M); aver. dose, 2 cc. (30 M).—INCOMP.: Antipyrine, tannin, acetanilid, phenacetin, iodides, fl'dextr. buchu, tinct. guaiac, morphine salts, carbonates, acacia, & FeSO_4 .

Spirit Glyceryl Trinitrate—U.S.P. X

Nitroglycerin; Trinitroglycerin; Trinitrin; Glonoin.—1% nitroglycerin.—SOL.: A., C., E.; 6 almond oil; v. sltly W.—SP. GR.: 0.814–0.820 at 25° C.—USES: In dyspnea of cardiac, pulmonary, or renal origin; epilepsy; puerperal eclampsia; incipient gangrene & local congestions; pulm. hemorrhage; arteriosclerosis, arterial spasm, chron., subacute & acute neuritis.—DOSE: 0.03–0.2 cc. ($\frac{1}{2}$ –3 M); aver. dose, 0.06 cc. (1 M).—INCOMPAT.: Alkalies, carbonates, HCl, Hl.—ANTIDOTES: Atropine, ergotin, or strychnine subcut.; stimulants.—CAUT.: If some of the spirit is spilled, pour on it at once some solut. KOH or NaOH.

SPIRIT HARTSHORN—see Spirit Ammonia

"SPIRIT HARTSHORN"—see Water Ammonia

SPIRIT HARTSHORN, SUCCINATED—see Solution Ammonium Succinate

SPIRIT LIBAVIUS, FUMING—see Tin Chloride, Stannic, Fuming

SPIRIT MINDERERUS—see Solution Ammonium Acetate

Spirit Mustard—N.F. V

2% by vol. oil mustard in A.—ACTION: Rubefacient; Local Stimulant.

SPIRIT NITER, SWEET—see Spirit Ethyl Nitrite

SPIRIT NITROGLYCERIN—see Spirit Glyceryl Trinitrate

SPIRIT NITROUS ETHER—see Spirit Ethyl Nitrite

Spirit Peppermint—U.S.P. X; B.P.

10% oil; the U.S.P. prep. is also macerated w. 1% peppermint herb.—ACTION: Carminative.—DOSE: 0.3–2.5 cc. (5–40 M); aver. dose, 1 cc. (15 M).

Spirit Phosphorus Merck—U.S.P.

Fr. 1.2 Gm. phosphorus & absol. A. to make 1000 cc.—Colorl. liq.—USES: As of phosphorus.—DOSE: Aver., 0.5 cc. (8 M).

Spirit Spearmint—U.S.P. X

10% oil & 1% spearmint herb by maceration w. A.—ACTION: Carminative.—DOSE: 0.3–2.5 cc. (5–40 M); aver. dose, 1 cc. (15 M).

SPIRIT TAR—see Oil Tar, Rectified

SPIRIT TURPENTINE—see Oil Turpentine

SPIRIT WINE—see Alcohol

SPIRIT, WOOD—see Alcohol Methylic

Spirocid

4.Oxy-3.acetylamino phenylarsenic Acid.— $C_6H_3.OH.NH.COCH_3.AsO_3H_2 = 275.09$.—Wh. odorl. cryst. powd.—SOL.: Alkalies; diff. W., A.—USES: In syph. in alternation with Hg, Bi, etc.; also in var. protozoal dis.—DOSE: Intern., 0.25 Gm. (4 grn.) 3–4 t.p.d. ev. o. day.

Spiroform

Acetylsalol.— $C_6H_4.O.CH_3.CO.COOC_6H_5 = 256.17$.—Wh., cryst. powd.—SOL.: A.; insol. W.—ACTION: Anti-rheumatic, analgesic, &

uric-acid solvent.—USES: Rheum., influenza, sciatica, etc.—DOSE: 0.5–1 Gm. ($7\frac{1}{2}$ –15 grn.) 3–5 t.p.d.

Spirosal

Monoglycol Salicylate.— $C_6H_4OH.CO(OH)(CH_2.OH) = 182.13$.—Alm. colorl. & odorl. liq.—SOL.: Eas. A., B., C., E.; abt 110 W.; 8 olive oil.—BOIL.: 169°–170° C. at 12 mm.—ACTION: Local antirheumatic & analgesic.—Appl. pure, or in mixt. 1:8 olive oil, or 1:2–3 A., or in 1:1 oint.

Spleen—Dried, Powd.

Fr. spleen of sheep or pigs; 1 part = abt 5 parts fresh organ.—USES: Anemia, chlorosis, malaria, myxedema, syph., typhoid, Basedow's dis., pulmon. tubercul., coxalgia, vesical tubercul., rachitis, & in psychic disturbances w. atrophied spleen.—DOSE: 0.25–0.75 Gm. (4–12 grn.) 3 t.p.d.

SPLIT NUT—see Physostigma

SPODIUM—see Charcoal, Animal

Spodumene—Mineral

Triphane.—OCCUR.: Sweden; Ireland; Brazil; U. S.—COMPOS.: $(SiO_3)_2Al(LiNa)$.—CRYST. SYST.: Monosym.—LUSTER: Vitr. to stony or dull.—COLOR.: Grayish-wh., rarely green or pink; somet. colorl.—STREAK: Wh.—CLEAV.: Fair prism.—Brittle; transp. to opaque.—HARDN.: 6.5–7.—SP. GR.: 3.13–3.20.—USES: Source of lithium preps.

Sponge Compressed—Bound

Sponge Tents.—Cylindrical pieces of sponge strongly compressed & bound w. twine.—USES: Enlarge wound canals, fistulous canals, the os uteri, &c.—CAUT.: Keep dry, espec. when unbound.

do. —Sheets

Sponge pressed into flat sheets.—USES: As preceding.

do. —Waxed

Sponge impregnated w. melted wax & then freed fr. excess of wax by strong pressure.—USES: Surgical, f. dilating wounds & constricted cavities, & f. bandages.

Sponge TENTS—see Sponge, Compressed

Spongion

Oxygen-free protein, fr. common sponge by treatment w. dil. HCl.—Yields glycoll & leucin when boiled w. dil. H_2SO_4 .

SPOONWOOD—see Kamala

SPOTTED ALDER—see Hamamelis

SPOTTED COWBANE, OR HEMLOCK—see Conium Fruit

SPOTTED LUNGWORT—see Pulmonaria

SURGE FLAX—see Mezereum

SURGE, FLOWERING—see Euphorbia Corollata

SURGE, FLOWERY-HEADED, OR PILL-BEARING—see Euphorbia

SPURRED RYE—see Ergot

SQUAW BUSH—see Viburnum Opulus

SQUAW MINT—see Hedeoma

SQUAW ROOT—see Caulophyllum

SQUAW VINE—see Mitchellia

SQUAW WEED—see Senecio

Squill—U.S.P. X; B.P.

Scilla; Sea Onion.—Dried fleshy inner bulb scales of the wh. variety of *Urginea maritima* (L.), Baker (*Urginea Scilla*, Steinh.; *Scilla Maritima*, L.), Liliaceæ, cut into thin slices & carefully dried.—HABIT.: Mediterranean basin, near the sea (Spain, France, Italy, Morocco, Algeria, &c.).—CONSTIT.: Scillin; scillitin (a purified scillitoxin; scillain); scillipicrin; sinistrin; sugar.—ACTION: Emet.; Diur.; Cardiac Tonic; Expector.; Cath.—USES: Coughs, colds, croup, dropsy, &c.; also in domestic economy f. poisoning mice, rats, &c.—DOSES: 0.06–0.12 Gm. (1–2 grn.) sev'l t.p.d. in dropsy; aver. dose, 0.1 Gm. (1½ grn.); 0.06–0.2 Gm. (1–3 grn.) as diur. & expector.; 0.36–0.8 Gm. (6–12 grn.) emet. Large doses dangerously irritant.—MAX. D.: 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) daily.—Acetum (1:5), 1 cc. (15 M).—Fl'd (Liq.) extr., 0.12–0.25 cc. (2–4 M) expector.; 0.6–1 cc. (10–15 M) emet., ev. 15–20 minutes.—Comp. Fl'dextr., 0.12–1 cc. (2–15 M).—Syr., 2–4 cc. (30–60 M).—Comp. Syr., 1.3–4 cc. (20–60 M).—Tr. (1:10), 0.3–2 cc. (5–30 M).—Alcoh. extr., 0.03–0.1 Gm. (½–1½ grn.).—ANTID.: Stomach siphon; tannin; demulcents; opiates; stimulants.

SQUIRREL CORN—see Corydalis

STAG BUSH—see Viburnum Prunifolium

STAGGER-WEED—see Corydalis; Larkspur

STANNIC & STANNOUS SALTS—see under Tin

STANNINE—see Stannite

Stannite—Mineral

Stannine; Tin Pyrites.—OCCUR.: Cornwall; Ireland; Zinnwald; Black Hills, Dakota.—COMPOS.: $\text{Sn}_4\text{Cu}_2\text{Fe}$.—CRYST. SYST.: Reg. tetrah. hemih.—LUSTER: Metallic.—COLOR: Greenish-gray.—STREAK: Bl.—FRACT.: Uneven; brittle.—HARDN.: 4.—SP. GR.: 4.3–4.522.

Stannoxyd

Tin oxide w. metal. tin free fr. Pb.—USES: As anthelmintic, & also in carbuncles, boils, anthrax, acne, styes, etc.—DOSE: Adults, 4–8 tablesp. p. day; children, 2–4 tablesp. daily.

Staphisagria—U.S.P. IX; B.P.

Stavesacre; Larkspur.—Ripe seed of *Delphinium Staphisagria*, L., Ranunculaceæ.—HABIT.: Mediterranean Basin; cult. France & Italy.—CONSTIT.: Delphinine; staphisagrine (staphisaine); delphinoidine; delphisine; staphisagroine; malic acid; fixed oil (20%–25%, B.P.C.); proteids.—ACTION: Antineuralgic; Diur.; Cathart.; Emet.; Rubefac.; Insecticide.—USES: Chiefly externally in itch, rheumat.,

& as insecticide.—DOSE: 0.03–0.12 Gm. (½–2 grn.); aver. dose, 0.06 Gm. (1 grn.).—ANTID.: Stomach siphon, ammonia, digitalis, tannin, &c.

Star-Anise—B.P.C.

Chinese Anise.—Fruit of *Illicium verum*, Hooker fil. (I. anisatum, Gaertn.), Magnoliaceæ.—HABIT.: Northern Anam; southern China; Japan.—CONSTIT.: Volat. (5%, B.P.C.) & fixed oils; anisic acid; tannin; resin; fat; pectin.—ACTION: Stim.; Diuretic; Arom.; Carminat.—USES: *Techn.*, in manuf. of liqueurs, & volat. oil.—DOSE: 0.3–2 Gm. (5–30 grn.).

Starch—U.S.P. X; B.P.

Amylum.—Empirical formula $(\text{C}_6\text{H}_{10}\text{O}_5)_n$.—Granules fr. grains of common wheat (*Triticum sativum*, Lam.), rice (*Oryza sativa*, L.), & corn (*Zea Mays*, L.); (the U.S.P. recognizes only the last); Gramineæ.—HABIT.: *Corn starch*: Tropical & subtropical America (chiefly the U. S.).—CONSTIT.: Granulose; cellulose.—SOL.: Hot W. (jelly when cold).—USES: Demulc.; diet f. invalids & convalesce.; dusting powd.; enemata (in aqu. solut.); antid. f. iodine.—*Techn.*, manuf. compressed tablets; paste; starching & sizing fabrics, &c.—Chem., as indicator (starch test-solut.); test'g f. I (Alfraise; Zulkowsky), HNO_2 (Böttger), Cl (Genlis), & Cu (Harrison-Kelly).

do. —Arrow-root

Maranta; Arrow-root.—Fecula fr. rhizome of *Maranta arundinacea*, L., Ranunculaceæ.—HABIT.: West Indies; also cult. in S. Carolina & Georgia, U. S., East Indies, Ceylon, & Southern Africa.—Wh., odorl., & tastel. floury lumps.—SOL.: Hot W.—CONSTIT.: Granulose; cellulose.—Demulc.; Nutr.; & Dietet.

STARCH, ALANT—see Inulin

STARCH, CASSAVA—see Tapioca

STARCH IODIDE—see Starch, Iodized

Starch Iodized

Starch Iodide.—2% I; the B.P.C. preparation contains 5% I.—Bluish-black powd.—INSOL. cold W.; sol. in hot W. w. transitory, or on prolonged boiling w. permanent, decolorization.—ACTION: Disinf.; Antisep.—USES: *Intern.*, in scrofulous diseases, secondary syph., leprosy, lupus, diar., typhoid fever, dysent., cholera, &c.—*Extern.*, inst. of iodof. in purulent & neglected wounds, phlegmons, venereal & carious sores, panaritium, on tampons in tuberculous fistulas; also w. lanum as substit. f. tinct. iodine.—DOSE: 0.5–2.5 Gm. (8–40 grn.) 2–3 t.p.d.; 2–5 Gm. (30–75 grn.), B.P.C.—APPL.: In 1:10 oint. w. lanum.—CAUT.: Keep well stoppered.

Starch Soluble Merck—C.P.

Amylodextrin; Amylogen.—Fine, wh., odorl., tastel. powd.—SOL.: Hot W.

MAXIMUM OF IMPURITIES

Nonvol. Matter..... 0.30%

Free Acid or Alkali..... None

USES: Testing f. tannin; indicator; detect'g I, oxidases, Cu, Cl, HNO_3 .

do. Merck—Accord. to Lintner

Starch Soluble Zulkowsky—Dry

Fine, wh., tastel. & odorl. powd. (also mkt'd as paste).—**SOL.**: W.—**USES**: As preced'g.

STARCH SUGAR—see Dextrose

STAR-FLOWER—see Borage

STAR GRASS—see Aletris

STARWORT—see Aletris; Helonias

STASSFURTITE—see Boracite

Staurolite—Mineral

OCCUR.: Switzerland; Tyrol; Moravia; Bavaria; Great Britain; Brazil.—**COMPOS.**: $(\text{SiO}_4)_2(\text{AlOH})(\text{AlO})_4\text{Fe}$.—**CRYST. SYST.**: Rhomb.—**LUSTER**: Vitr. to dull.—**COLOR**: Yellowish or reddish-brown.—**STREAK**: Wh. or gray.—**Brittle**: uneven to subconch. fract.; transl. to opaque.—**HARDN.**: 7–7.5.—**SP. GR.**: 3.65–3.77.

STAVESACRE—see Staphisagria

STEARIN—see Tristearin

Stearodine

Calcium Iodostearate.— $(\text{CH}_3[\text{CH}_2]_7\text{CHI}[\text{CH}_2]_8\text{CO}_2)_2\text{Ca}$ = 489.34.—Cream colored, alm. odorl. solid; abt 26% I.—**SOL.**: B., C., E.; insol. W.—**ACTION & USES**: As of inorganic iodides.—**DOSE**: In goiter, as a prophylactic, 0.01 Gm. ($\frac{1}{10}$ grn.) weekly, or a biannual series of 6 weeks treatment consist'g of 0.01 Gm. ($\frac{1}{10}$ grn.) daily.

STEATITE—see Talc

STEINBÜHL YELLOW—see Barium Chromate

Stellite

A hard, lustr., acid-resistant alloy of Co, Cr, & some W or Mb.—**USES**: Manuf. surgical instruments, cutlery, etc.

Sterilization

The usual methods resorted to f. sterilizing medicinal preparations such as powders, liquids, & solts, pharmaceutical apparatus, surgical instruments, etc., are as follows:

No. 1.—a: *Dry Heat* (hot-air closet): (1) 2 hrs at 150° C., or (2) 1 hr at 180° C.

b: *Direct Flame*

No. 2.—a: *Live Steam*: 30 min.

b: *Steam under Pressure* (Autoclave): 15–20 min. at 115°–120° C.

No. 3.—Discontinuous Sterilization (Tyndallization): 15–60 min. at 60° C. on 3–4 successive days.

No. 4.—Direct Boiling: 5–10 min.; (in 90 min. all spores also destroyed).

No. 5.—Water-Bath: 20 min.

No. 6.—Boiling in: *a*: Water, 20 min.
b: 1% solut. Na_2CO_3 , 15–20 min.

No. 7.—Pasteurization: 15–30 min. at 60°–70° C. in closed vessels, then rapidly cooling.

No. 8.—Filtration through a Chamberland, Berkefeld, or similar, filter.

APPARATUS:

Bottles, Mortars, Graduates & o. Measuring Vessels, Funnels, & Porcelain Ware: First

wash w. hot dist. W. & soap, then No. 1 *a* (1) or (2), or No. 2 *a* or *b*.

Glass Rods: Also by No. 1 *b*.

Ampuls: First wash w. dil. HCl to remove superficial alkali, then w. dist. W., then No. 1 *a* (1) or (2), or No. 2 *a* or *b*.

Rubber Articles (*Drains; Nipples, etc.*): No. 6, *a* or *b*.

Horn: Wash w. sterilized W. & cotton, then w. A. & E.

Spatulas: No. 1 *b*.

INSTRUMENTS:

Knives, Forceps, etc.: No. 1 *a* (2), or No. 1 *b*, or No. 2 *b*, or No. 6 *a* or *b*.

SURGICAL ACCESSORIES:

Bandages, Cotton, Mull, & Parchment Paper: Loose, or loosely rolled, in wide-mouthed bottles w. cotton plug as stopper, by No. 2 *a* or *b*.—**NOTE**: If bandages contain volatile substances, heat is not permissible.

Filter Paper: Cut to fit funnels, & sterilized w. them, by No. 1 *a* at 130° C. f. $\frac{1}{2}$ hr, or 2 *a*.

Surgical Thread: In a test-tube w. cotton plug, No. 2 *a*, or No. 6 *a*.

Catgut: (1) Roll on glass spools or plates, then carefully boil in cumene at about 160° C. $\frac{1}{2}$ –1 hr on sand-bath, then remove cumene w. A.

(2) Immerse in solut. KI 1, I 1, & distilled W. 98, f. 1 week.

(3) Immerse 1 week in clove oil, then 6–8 hrs in A. Many o. methods are used (carbolized oil, chromic acid, chromium sulphate, formaldehyde, potassium dichromate, etc.).

CHEMICALS:

No. 1 *a* (1) where melting-point, decomposition, volatility, or loss of W. of crystallization not affected (e.g., boric acid, zinc oxide, talcum, etc.); No. 2 *b* f. salts not decomp'd by steam or soluble in W.; otherwise moisten repeatedly w. small quantities of a mixture of chloroform or E. w. 70% A. & dry at 50°–60° C.

SOLUTIONS:

In bulk or in ampuls f. hypodermic or o. use, No. 2 *a* or *b*, or No. 3, for

Adrenaline	Novocaine
Alypin	Quinine
Betaucaine	Sodium Arsenite
Caffeine	Sodium Cacodylate
Codeine	Stovaine
Morphine	Tropacocaine

Gelatin, No. 2 *a* f. $\frac{1}{2}$ hr. on 5 days. See *Gelatin, Sterilized Solut.*

Sodium Chloride, also by No. 4.

No. 3 for	
Arrhenal	Hyoscine
Atropine	Organotherapeutic
Atoxyl	Preps
Cocaine	Pilocarpine
Duboisine	Scopolamine
Ergotin	Serums
Glycerophosphates	Strychnine

Hypodermic soluts are also often made by simply diss. the substance in distilled, sterilized W. just when to be used.

Antipyrine: No. 2 b f. 20 min. at 110° C., or 30 min. at 105° C.

Apomorphine: No. 8, w. addition of small quantity of HCl or acetic acid.

Camphorated Oil: Oil first by No. 1 a at 100° C. f. 2 hrs, then camphor diss. when nearly cool; or, filtered solut. by No. 3, or in tightly-stoppered bottles by No. 1 a at 120° C. f. 2 hrs.

Cocaine: Sometimes by No. 2 a or b.

Colloidal Silver: Simple rubbing w. sterilized W. in a sterile mortar, without heating (decomposed!) or filtering.

Mucilage Acacia: No. 2 a, or No. 3 f. ½ hr.

Physostigmine: No. 8; becomes colored even at 60° C.

MIXTURES: OILY:

Emulsions or Suspensions in Oil or Glycerin:

Iodoform or mercury salts (HgO, HgI₂, HgCl, benzoate, salicylate, thymolacetate, etc.): (1) heat the oil or glycerin at 120° C. by No. 1 a f. 2 hrs., then cool & add remedy.—(2) No. 2 a.

Lecithin in Oil: No. 5, 10 minutes, or No. 1 a at 100° C.

OILS:

Almond, Olive, Paraffin, etc.: No. 1 a at 120° C. f. 2 hrs.

StibenyI

Sodium p-Acetylamino-phenylstibinate.—CH₃CO.NH.C₆H₄.SbO₃HNa + H₂O = 344.30. —Stlty colored powd.; 33% Sb.—SOL.: 10 W.—USES: As chemotherapeutic agent in treatment of trypanosomiasis, kala-azar, leishmaniasis, bilharziasis, filariasis, syphilis, lepra, etc.—DOSE: *Intraven.*: 0.05–0.1 Gm. (¾–1½ grn.) grad. incr. to abt 0.4 Gm. (6 grn.), ev. 2–3 days; the remedy may also be inj. intramuscularly in like doses.

STIBIC ANHYDRIDE—see Antimony Oxide

STIBIUM & SALTS—see Antimony

STIBNITE—see Antimonite

Stilbene

Symmetrical Diphenylethylene; Toluylene.—C₆H₅.CH:CH.C₆H₅ = 180.10.—By passing toluene (or dibenzyl) over PbO heated to redness, or fr. benzaldehyde & S by heat.—Colorl. to yellowish cryst.—SOL.: Hot A., B., E.—MELT.: 125° C.—BOIL.: 306°–307° C.—USES: In form of derivatives as starting point in manuf. artificial dyes.

STILBITE—see Desmine

Stillingia—N.F. V; B.P.C.

Queen's Root; Yaw Root; Silver Leaf.—Dried roots of *Stillingia sylvatica*, L., Euphorbiaceae.—HABIT.: Southeastern U. S.—CONSTIT.: Stillingine (alkaloid; existence doubted); acrid resin (sylvacrol); acrid fixed oil; vol. oil (3%–4% B.P.C.); starch; glucoside; tannin; gum.—ACTION: Emet.; Alter. (in hepatic & cutaneous diseases); Antisyph.; Antiscrofular; Expector.; Diur.; Diaph.; Sialag.; Cholag.—USES: Syph., skin diseases, scrofula, chron. rheumatism, etc.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose,

2 Gm. (30 grn.).—Extr., 0.2–0.6 Gm. (3–10 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—Comp. Fl'dextr., 2–6 cc. (30–90 M).

STINKWEED—see Stramonium

STONE RED—see Iron Oxide, Red, Ignited

STONE-ROOT—see Collinsonia

Storax—U.S.P. IX

Styrax; Oriental Sweet Gum.—Balsam obt'd fr. trunk of *Liquidambar orientalis*, Miller (Levant storax), or *L. styraciflua*, L. (American storax), Hamamelidaceae.—HABIT.: Asia Minor.—Grayish, semi-solid, sticky mass.—SOL.: 1 warm A., alm. completely in B., E., acetone, CS₂; insol. W.—CONSTIT.: Styrol (styrene; styrolene); cinnamic acid; styracin; α- & β-storesin; phenylpropyl cinnamate; ethyl cinnamate; ethyl vanillin.—ACTION: Stim.; Expector.; Diur.; Antisep.; Disinf.—USES: Partic. in scabies & o. parasitic skin dis.—Techn., in microscopy f. imbedding diatoms; in fumigating pastilles & powders; in perfumery.—DOSE: 0.6–2 Gm. (10–30 grn.), usually as tinct.; aver. dose, 1 Gm. (15 grn.).

do. —Prepared—B.P.

Storax purified by diss. in A., filtering, & evaporating.—Translucent, brownish-yellow, semiliquid.—SOL.: A., C., E., CS₂, glac. acetic acid.—ACTION, USES, &c.: As preced.

STORKSBILL—see Geranium

Stovaine

Benzoyl-ethyl-dimethylaminopropanol Hydrochloride; Amylocaine Hydrochloride (B.P.C.).—CH₃.CH₂.C(C₆H₅COO)(CH₃)CH₂N(CH₃)₂.HCl = 271.71.—Small, lustr. scales.—SOL.: Eas. (14, B.P.C.) W., methyl A., acetic E.; 5 absol. A.; stlty in acetone.—MELT.: 175° C.—ACTION: Local Anesthetic.—USES: In ophthalmology; inst. of cocaine f. spinal anesth., partic. in rectal operations.—DOSE: 0.002 Gm. (⅓₃₀ grn.); 0.005–0.06 Gm. (⅓₁₂–1 grn.), B.P.C.—APPL.: 5%–10% solut. on mucous membranes; hypod., 0.75%–1% solut. f. local anesth.

Stovarsol

Acetylamino-hydroxyphenylarsonic Acid.—(Manufactured by Merck & Co., Inc., by license of Les Établissements Poulenc Frères, Paris).—HO.CH₃CONH.C₆H₄.As:O(OH)₂ = 251.08.—Wh., odorl. powd.; stlty acid taste.—SOL.: Stlty W., A.; eas. in alkalies & alkali carbonates; stable at ord. temp.—USES: Amebic dysentery.—DOSE: 0.25 Gm. (4 grn.) 2–3 t.p.d. orally, in syph.

do. —Tablets, 0.25 Gm. Each

Stramonium—U.S.P. X; B.P.

Thorn Apple; Jamestown Weed; Jimson or Jimson Weed; Stinkweed; Devil's Apple; Apple of Peru.—Dried lvs & flowering tops (ripe seed also used, but not official in the U.S.P. or B.P.) of *Datura Stramonium*, L., Solanaceae, & yielding not less than 0.25% total alkaloids.—HABIT.: Europe; Asia; America.—CONSTIT.: Lvs: Atropine, hyoscyamine & scopolamine

(total 0.1%–0.3%, B.P.C.); albumin; mucilage.—*Seed*: Hyoscyamine, atropine & scopolamine (0.16%–0.28% total alkaloids, B.P.C.); fixed oil (15%–30%, B.P.C.); malic acid; resin; proteids.—*ACTION*: Hypn.; Nervine; Mydriatic; Nar.; Antispasm.; Diur.—*USES*: Insanity, mania, epilepsy, rheumat., syph., dysmenor., spasmodic asthma, cancerous sores, chorea.—*Lvs*: Smoked in asthma.—*Extern.*, in oint., f. ulcers, hemorrhoids, fissures, skin diseases, poison-oak erupt., rheumat., sprains, &c.; also to keep flies fr. horses, in form of 1:3 aqu. decoct. as extern. appl.—*Doses*: *Lvs*: 0.06–0.2 Gm. (1–3 grn.); aver. dose, 0.075 Gm. (1¼ grn.); f. smoking, 1 Gm. (15 grn.).—*Alcoh. extr.*, 0.015–0.06 Gm. (¼–1 grn.); *Max. D.*, 0.2 Gm. (3 grn.) single, 0.6 Gm. (10 grn.) daily.—*Fl'dextr.*, 0.06–0.2 cc. (1–3 M); *Max. D.*: 0.3 cc. (5 M) single, 1 cc. (15 M) daily.—*Tr.* (1:10), 0.3–1 cc. (5–15 M).—*Seed*: 0.06–0.2 Gm. (1–3 grn.) in powd., tinct., or fl'dextr.; *Max. D.*: 0.2 Gm. (3 grn.) single, & 0.6 Gm. (10 grn.) p.d.—*ANTID.*: Same as f. belladonna.

STRAWBERRY TOMATO—see Alkekengi

STRAWBERRY TREE—see Euonymus

STRIPED ALDER—see Hamamelis

STRONTIA—see Strontium Oxide, Anhydrous

Strontianite—Mineral

OCCUR.: Strontian in Scotland; Yorkshire in England; Saxony; Salzburg, Germany; & New York & Pennsylvania, U.S.—*COMPOS.*: SrCO_3 .—*CRYST. SYST.*: Rhomb.—*LUSTER*: Vitr. to greasy.—*COLOR*: Wh. or colorl. & pale shades of yellow, green & brown.—*STREAK*: Wh.—*CLEAV.*: Fair prismatic.—*Transluc.*:—*HARDN.*: 3.5–4.—*SP. GR.*: 3.68–3.714.—*USES*: Source of strontium preps.

Strontium—By Electrolysis

Sr = 87.63; first obt'd by Davy in 1807. One of the group of alkaline earths.—Pale-yellow pieces; oxidizes quickly on expos.—*SP. GR.*: 2.5 at 15° C.—*MELT.*: Betw. 810°–850° C.—*CAUT.*: Keep under naphtha.

Strontium Acetate Merck—C.P.

$\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2 + \frac{1}{2}\text{H}_2\text{O} = 214.71$.—Wh., cryst. powd.—*SOL.*: Eas. W., diff. A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.010%
Alkali Salts.....	0.300%
Calcium (Ca).....	0.400%
Barium (Ba).....	0.020%
Other Heavy Metals.....	0.000%

USES: *Chem.*, as test f. inosite (Seidel).—*Medic.*, as Anthelm., Tonic, & Vermifuge.—*DOSE*: 2 Gm. (30 grn.) morn. & eve. f. 5 days.

Strontium Arsenite Merck

Approx. $\text{Sr}(\text{AsO}_2)_2 + 4\text{H}_2\text{O} = 373.61$.—Wh. odorl. powd.; slowly oxidizes in air to arsenate.—*SOL.*: W.—*ACTION*: Alter.; Tonic.—*USES*: Skin dis. & malarial dis.—*DOSE*: 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.) sev'l t.p.d.

Strontium Bromate

$\text{Sr}(\text{BrO}_3)_2 + \text{H}_2\text{O} = 361.49$.—Colorl. to yellowish hygros. cryst. powd.—*SOL.*: 3 W.—*CAUT.*: Keep well-stoppered.

Strontium Bromide Merck—U.S.P. IX—Cryst. or Gran.

$\text{SrBr}_2 + 6\text{H}_2\text{O} = 355.57$.—Colorl., hygros. cryst.; bitter, saline taste.—*SOL.*: Abt 0.35 W. at 25° C., sol. A., & insol. E., U.S.P.—*Melts* when quickly heated, & becomes anhydrous at above 180° C., U.S.P.—*ACTION*: Nerve Sed.; Anaphrodis.; Antiepileptic; Antinephritic.—*USES*: Hyperacidity of stomach, rheum., gout, epilepsy, nervousness, nephritis, hyster., headache, & convulsions. The conc. solut. also used as contrast substage in roentgen ray exam'n of arteries & veins.—*DOSE*: 0.3–1–2 Gm. (5–15–30 grn.); aver. dose, 1 Gm. (15 grn.). In *epilepsy* up to 10 Gm. (150 grn.) may be given daily. In Basedow's dis. in childr., 0.25 Gm. (4 grn.) comb'd w. 0.5 Gm. (8 grn.) strontium iodide.—*INCOMP.*: Acids, alkaloids, & salts of Sb, Bi, Cu, Pb, Hg, & Ag.—*CAUT.*: Keep in glass-stop. vials.

do. Merck—Dried—Powd.

Wh., moderately hygros. powd.; cont's abt 80% SrBr_2 .—*SOL.*: v. eas. W., A.—*ACTION*: Sed.; Tonic.—*USES*: As of cryst.—7 pts of dry salt = 10 pts of the cryst.—*DOSE*: 0.2–0.6 Gm. (3–10 grn.).

Strontium Carbonate Merck—C.P.

$\text{SrCO}_3 = 147.64$.—Wh., odorl., tastel. powd.—*SOL.*: Acids; & in CO_2 -W.; pract. insol. W.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Alkali Carbonate (Na_2CO_3)...	0.05%
Barium (Ba).....	0.02%
Calcium (Ca).....	0.50%
Iron (Fe).....	0.005%
Other Heavy Metals.....	0.002%

do. Merck—N. F. IV

DESCRIPT. & SOL.: As preced'g.—*USES*: *Medic.*, incr. coagulability of blood.—*Techn.*, in pyrotechn.; manuf. iridescent glass; refining sugar.—*DOSE*: 0.3–2 Gm. (5–30 grn.).

STRONTIUM CHLORARSENOBEHENATE—see Elarson

Strontium Chlorate Merck

$\text{Sr}(\text{ClO}_3)_2 = 254.55$.—Wh., cryst. powd.—*SOL.*: 0.6 W.—*USES*: Pyrotechn. (red fire).—*CAUT.*: Use same precautions as w. potass. chlorate.

Strontium Chloride Merck—Reagent—Free fr. Barium

$\text{SrCl}_2 + 6\text{H}_2\text{O} = 266.65$.—Wh. or colorl. cryst.—*SOL.*: Abt 1 W.; also in A.

MAXIMUM OF IMPURITIES

Barium (Ba).....	0.005%
Calcium (Ca).....	0.2%
Iron (Fe).....	0.001%
Other Heavy Metals.....	0.000%

Strontium Chloride Merck—C.P.—Cryst.

$\text{SrCl}_2 + 6\text{H}_2\text{O} = 266.65$.—Colorl. cryst.; sharp, bitter taste.—SOL.: Abt 1 W.; also sol. A.

MAXIMUM OF IMPURITIES

Barium (Ba).....	0.020%
Calcium (Ca).....	0.75%
Other Heavy Metals.....	0.000%

USES: Manuf. Sr salts.

do. Merck—Pure—Gran.

$\text{SrCl}_2 + 6\text{H}_2\text{O} = 266.65$.—Colorl. gran.—SOL.: Abt 1 W.; A.—USES: Manuf. stront. carbonate; also to some extent in alcoholic solut. f. red flames.

STRONTIUM CHOLOSALICYLATE—see Agocholan

Strontium Chromate

$\text{SrCrO}_4 = 203.63$.—Yellow powd.—SOL.: Sltly W., eas. in HCl, HNO_3 , & in acetic acid.

Strontium Cinnamate—B.P.C.

$\text{SrC}_{18}\text{H}_{14}\text{O}_4.4\text{H}_2\text{O} = 453.90$.—Wh., prismatic, cryst. or amorph. powd.; 65.28% cinnamic acid.—SOL.: 100 W., more eas. hot W.; insol. A.—USES: As of sod. cinnamate.—DOSE: 0.12–0.3 Gm. (2–5 grn.).

Strontium Citrate

$\text{SrC}_6\text{H}_6\text{O}_7 = 277.71$.—Wh., cryst. powd.—SOL.: Sltly W.

STRONTIUM DIURANATE—see Uranium & Strontium Oxide

Strontium Fluoride

$\text{SrF}_2 = 125.63$.—Wh. powd.—SOL.: In HF, HCl; insol. W.—ACTION: Antisep.—USES: As of alkali fluorides.

Strontium Formate

$\text{Sr}(\text{HCO}_2)_2 + 2\text{H}_2\text{O} = 213.69$.—Colorl. or wh. granules.—SOL.: W.

Strontium Glycerophosphate

$\text{SrO}_2.\text{PO}.\text{OC}_3\text{H}_5(\text{OH})_2 = 257.74$.—Wh. powd.—SOL.: Sltly W.; insol. A.—USES: Improv'g the appetite & nutritional condition following debilitating diseases, in pulmon. tuberc., albuminuria, rachitis, etc.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.

STRONTIUM HYDRATE—see Strontium Hydroxide

Strontium Hydroxide Merck—Pure

"Strontium Oxide Hydrated"; Strontium Hydrate. — $\text{Sr}(\text{OH})_2 + 8\text{H}_2\text{O} = 265.77$. — Colorl., deliq. cryst. or wh. powd.—SOL.: 50 cold, 2.1 boil., W. usually w. turb. (solut. alkal.).—USES: *Techn.*, refining beet sugar; separ. crystallizable sugar fr. molasses; manuf. caustic alkalies fr. corresponding carbonates.—CAUT.: Keep dry.

STRONTIUM HYPOSULPHITE—see Strontium Thio-sulphate

Strontium Iodide Merck—U.S.P. IX

$\text{SrI}_2 + 6\text{H}_2\text{O} = 449.57$.—Colorl. to yellowish, deliq., fused masses, or granules; bitterish, saline taste; becomes yellow on expos. to air & light.—SOL.: Abt 0.2 W. at 25° C., sol. A., & insol. E.—ACTION: Alter.; Sialog.—USES: Inst.

of KI in heart dis. (causes no digestive disturbances), asthma, rheum., scrof., &c.; has also been used inst. of calc. phosphate as a reconstituent; w. stront. bromide (2:1) in Basedow's dis. in childr.—DOSE: 0.3–1 Gm. (5–15 grn.) single; 1–3 Gm. (15–45 grn.) p.d.; aver. dose, 0.3 Gm. (5 grn.).—CAUT.: Keep in dark bts.

Strontium Lactate Merck—U.S.P. VII

$\text{Sr}(\text{C}_3\text{H}_5\text{O}_3)_2 + 3\text{H}_2\text{O} = 319.79$.—Wh., gran. powd.—SOL.: Sltly A.; 4 cold; 0.5 boil. W.—ACTION: Anthelm.; Antinephritic; Diur.; Tonic.—USES: Albuminuria of nephritis; in worms; rheum., gout, & chorea; incr. coagulability of blood.—Decreases albumin in urine without diuresis.—DOSES: Neph., 0.3–0.6 Gm. (5–10 grn.); f. worms, 2 Gm. (30 grn.) twice p.d. f. 5 d.; to incr. coag. of blood, 2–4 Gm. (30–60 grn.).—MAX. D.: 8–10 Gm. (120–150 grn.) p. day.

STRONTIUM MONOSULPHIDE—see Strontium Sulphide

STRONTIUM MONOXIDE—see Strontium Oxide, Anhydrous

Strontium Nitrate Merck—C.P.—Dry

$\text{Sr}(\text{NO}_3)_2 = 211.65$.—Wh. granules or powd.—SOL.: Abt 1.5 W.; sltly A., acetone.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Barium (Ba).....	0.020%
Other Heavy Metals.....	0.000%

do. Merck—Purified—Gran.

DESCRIPT. & SOL.: As preceding.—USES: *Intern.*, in artic. rheum.—DOSE: 15 Gm. (4 dr.) p. day.—*Techn.*, in pyrotechn. (red fire); signal lights; marine signals; railroad flares.

Strontium Nitrite

$\text{Sr}(\text{NO}_2)_2 = 179.65$.—Wh. to yellowish powd.—SOL.: W.

Strontium Oxalate

$\text{SrC}_2\text{O}_4 + \text{H}_2\text{O} = 193.66$.—Wh., odorl., cryst. powd.—SOL.: Alm. insol. in W.; eas. HCl.—USES: Pyrotechn.

Strontium Oxide Merck—Anhydrous

Strontia; Strontium Monoxide.— $\text{SrO} = 103.63$. —Grayish-wh., porous, caustic mass.—With W. evolves much heat, & forms hydroxide.—USES: Manuf. glass; as pigment & filler in paints; in fireworks; bleaching textiles.—CAUT.: Keep dry, in well-stoppered bottles.

"STRONTIUM OXIDE HYDRATED"—see Strontium Hydroxide

Strontium Peroxide Merck—Powd.

Abt 84% $\text{SrO}_2 = 119.63 = 13.3\%$ available O.—Wh., odorl., tastel. powd.; grad. decomp. on expos. to air.—SOL.: Alm. insol. W. but is decomp. w. liberation of O.—ACTION & USES: As of other medicinal peroxides.—APPLIC.: As dust, powd. or oint.—CAUT.: Keep dry.

Strontium Phosphate Merck

$\text{Sr}_3(\text{PO}_4)_2 = 452.97$.—Wh. odorl. powd.—**SOL.**: Acids.—**ACTION**: Nutritive Tonic.—**USES**: Phth., & o. wasting dis. as a tissue builder. Said to be superior to calc. phosphate.—**DOSE**: 0.6–2 Gm. (10–30 grn.).

STRONTIUM PLATINOCYANIDE—see **Platinum & Strontium Cyanide**

Strontium Salicylate Merck—U.S.P. X

$\text{Sr}(\text{C}_7\text{H}_5\text{O}_3)_2 + 2\text{H}_2\text{O} = 397.81$.—Wh., odorl. cryst. powd.—**SOL.**: 19 W. & 61 A. at 25° C., 3.7 boil. W., & 14 boil. A., U.S.P.—**ACTION**: Antirheum., Intest. Antisept.—**USES**: Rheum., gout, chorea, muscular pains, pleurisy, & intestinal fermentation.—**DOSE**: 0.3–1 Gm. (5–15 grn.) 2–3 t.p.d.; aver. dose, 1 Gm. (15 grn.).

Strontium Sulphate Merck—Precip.—Free fr. Sodium

$\text{SrSO}_4 = 183.69$.—Wh. odorl., cryst. powd.—**SOL.**: In solut. alkali chlorides; v. sltly W.—**USES**: Pyrotechn.

do. **Merck—Precip.—Techn. (II)**

Strontium Sulphide Merck

Strontium Monosulphide.— $\text{SrS} = 119.69$.—Gray powd.; H_2S odor in moist air.—**SOL.**: Acids w. decomp'n; sltly W.—**USES**: In luminous paints, because of its phosphorescent properties; also as depilatory.

Strontium Tartrate

$\text{SrC}_4\text{H}_4\text{O}_6 + 4\text{H}_2\text{O} = 307.75$.—Wh. powd.—**SOL.**: v. sltly W.—**ACTION & USES**: Diuret.

Strontium Thiosulphate Merck

Strontium Hyposulphite.— $\text{SrS}_2\text{O}_3 + 5\text{H}_2\text{O} = 289.83$.—Fine need.—**SOL.**: W.

Strontium & Potassium Chlorate

$\text{Sr}(\text{ClO}_3)_2 \cdot 2\text{KClO}_3 = 499.67$.—Wh., cryst. powd.—**SOL.**: W.—**USES**: Pyrotechn.

Strophanthin Merck—U.S.P. X

Glucoside or mixt. of glucosides fr. seeds *Strophanthus Kombé*, Oliv.—Wh. to yellowish, amorph. powd.; v. bitter taste.—**SOL.**: v. eas. W., dil. A.; alm. insol. B., C., E.—**ACTION**: Vaso-constrictor; Heart Tonic. Not Diur.—**USES**: Cardiac insufficiency, muscular cardiac degeneration, chron. nephritis, arteriosclerosis, tachycardia, etc.; also in myocarditis, heart failure in pneumonia, & after prolonged narcosis in chron. nephritis & uremia; superior to digitalin in some cases.—**DOSE**: 0.0003–0.001 Gm. ($\frac{1}{200}$ – $\frac{1}{60}$ grn.) per day per os or intravenously; aver. dose, 0.0005 Gm. ($\frac{1}{120}$ grn.) intraven. per day.—In **VETER. MED.**, horses, 0.05–0.15 Gm. ($\frac{3}{4}$ – $2\frac{1}{2}$ grn.) *intern.*, 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.) *intraven.*, & 0.002–0.003 Gm. ($\frac{1}{30}$ – $\frac{1}{20}$ grn.) *subcut.*; dogs, 0.005–0.01 Gm. ($\frac{1}{12}$ – $\frac{1}{6}$ grn.) *intern.*, & 0.00025–0.001 Gm. ($\frac{1}{240}$ – $\frac{1}{60}$ grn.) *subcut.*—**ANTID.**: Emetics, stomach siphon, aconite, veratrum viride, atropine (0.0005–0.001 Gm. [$\frac{1}{120}$ – $\frac{1}{60}$ grn.] *subcut.*), camphor, mustard plaster, brandy.

do. —1:1000 Solut.—see **Kombéin**

do. **Thoms—Cryst.**

Ouabain; G.—*Strophanthin*; *Gratus Strophanthin*.— $\text{C}_{30}\text{H}_{46}\text{O}_{12} \cdot 9\text{H}_2\text{O} = 760.66$.—Glucoside fr. *Strophanthus gratus*; ident. w. ouabain.—Colorl. cryst.—**SOL.**: 100 W., 30 absol. A., 30 amyl A.; sltly C., E., & acetic E.—**MELT.**: 187°–188° C., after being dried at 105° C.—**ACTION**: Cardiac Tonic; Diur.—**USES**: As of digitalis in weak heart, chronic muscular degeneration, muscular atrophy, aortal insufficiency, disturb. of compensation, dyspnea, edema, etc.—**DOSE**: *Intramusc.* or *intraven.*, adults, 0.0005–0.001 Gm. ($\frac{1}{120}$ – $\frac{1}{60}$ grn.) not oftener than once in 24 hrs. (N.N.R.).—**MAX. D.**: Adults, 0.006 Gm. ($\frac{1}{10}$ grn.) per day, per os.

G.—**STROPHANTHIN**—see *Strophanthin Thoms*; Ouabain

Strophanthin Tannate

Yellowish-wh., amorph. powd.; 58% strophanthin (Kombé).—**SOL.**: A.—**USES**, &c.: As of strophanthin, but more easily taken.—**DOSE**: 0.0002–0.0005 Gm. ($\frac{1}{300}$ – $\frac{1}{120}$ grn.).

Strophanthus—U.S.P. X; B.P.

Dried ripe seeds of *Strophanthus Kombé*, Oliver, or of *S. hispidus*, D. C., Apocynaceae, deprived of the awns.—**HABIT**: Central Africa; Asia; Philippines.—**CONSTIT.**: *Strophanthin* (8%–10%, B.P.C.); kombic acid; choline; trigonelline; fixed oil (abt 30%, B.P.C.).—**ACTION**: Cardiac Stim.; Diur.; Substitute f. digitalis.—**USES**: Heart diseases, asthma, dyspnea, dropsy, renal colic due to calculi, palpit. of heart, nephrit., &c.—**DOSE**: 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.); aver. dose 0.06 Gm. (1 grn.).—**Extr.** (1:2, B.P.), 0.015–0.06 Gm. ($\frac{1}{4}$ –1 grn.).—**Tr.** (1:10), 0.12–0.6 cc. (2–10 M); aver. dose, 0.5 cc. (8 M).—**ANTID.**: Emetics, stomach siphon, cathartics, tannin, opium, coffee, &c.

Strychnine Merck—Alkaloid—N.F. V—Cryst., Gran., or Powder.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 = 334.30$.—Alkaloid fr. seed of *Nux Vomica* & o. Loganiaceae.—Sm., hard cryst., or wh., cryst. powd.; v. bitter taste.—**SOL.**: 6420 W., 136 A., 5 C., 180 B., at 25° C., 3100 boil. W., 34 boil. A., & v. sltly E., U.S.P.—**MELT.**: Abt 265° C.—**ACTION**: Bitter Tonic; Excitomotor; Stim.; Stomachic; Spinant.—**USES**: *Intern.*, palsy, tabes dorsalis, chronic alcoholism, vomiting, dyspepsia, anemia, insomnia fr. mental over-work, &c.; antidote to chlorof. & chloral hydrate poisoning. Poison f. rats, mice, foxes, & wolves.—*Extern.*, linim. in palsy, amaurosis, & myopia.—*Techn.* as test f. Br & HNO_2 (Denigès), HClO_3 (Foges), & cerium oxide (Plugge).—**DOSES**: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.) 2–3 t.p.d.; aver. dose, 0.0015 Gm. ($\frac{1}{40}$ grn.).—**MAX. D.**: 0.01 Gm. ($\frac{1}{3}$ grn.) single; 0.02 Gm. ($\frac{1}{2}$ grn.) p.d.; in dipsomania, 0.0005–0.002 Gm. ($\frac{1}{120}$ – $\frac{1}{30}$ grn.) hypoderm.—**APPL.**: 0.5%–3% oint.—**ANTID.**: Stomach siphon, tannin, emetics, camphor, charcoal, paraldehyde, urethane, potass. bromide, chlorof. injections, chloral hydrate, morphine *subcut.* (0.02 Gm. [$\frac{1}{2}$ grn.]), curare *subcut.*, 0.1%–0.5% solut. potass. permangan.

intern., artif. respir., &c.—INCOMPAT. (of all strychnine salts): Alkalies, alkali carbonates & bicarbonates, NH_4Cl , benzoates, dichromates, bromides, borax, cyanides, gold chloride, ichthyol, iodides, HgCl_2 , oxalic acid, picric acid, piperazine, potassio-mercuric iodide (not if acacia present), oxidizers, tannic acid, salicylates.

Strychnine Acetate Merck

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_2\text{H}_4\text{O}_2 = 394.34$.—Wh. cryst. powd.; abt 84.75% strychnine.—SOL.: Eas. in W. acidulated w. acetic acid.—USES, DOSES, &c.: As of the alkaloid.

do. —Solution—N.F. IV

0.178% w/v strychn., 3.5% dil. acetic acid, 25% A., 1% comp. tr. cardamom, & W.—DOSE: Aver., 0.6 cc. (10 M).

Strychnine Arsenate Merck—Cryst. or Powd.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{H}_3\text{AsO}_4 + 2\text{H}_2\text{O} = 512.32$.—Wh., cryst. or wh. powd.; v. bitter taste.—SOL.: Abt 20 cold, abt 5 hot, W.; stlty A.—ACTION: Tonic; Alter.; Antituberc.—USES: Tuberculous skin dis., malarial affect., bronch., asthma, & emphysema; us'y subcut. in 0.5% suspens. in liq. paraffin; of this 0.25–1 cc. (4–15 M) by inject. per day.—DOSE: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.) sev'l t.p.d. intern. or subcut.—ANTID. & INCOMP.: As of strychnine alkaloid.

Strychnine "Arsenite"

A mixt. of abt 77% strychn. & 23% As_2O_3 .—Wh., odorl. powd.—SOL.: Stlty W.—ACTION: Tonic; Alter.; Antiper.—USES: Remit. & interm. fever, dyspep., tuberculosis, skin dis., &c.—DOSE: 0.001–0.004 Gm. ($\frac{1}{60}$ – $\frac{1}{15}$ grn.) sev'l t.p.d.

Strychnine Bisulphate

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{H}_2\text{SO}_4 + 2\text{H}_2\text{O} = 468.41$.—Wh. need.—SOL.: W.

Strychnine Cacodylate Merck

Wh., cryst. powd.—SOL.: Stlty W.—USES: Accord. to Eysseric, in comparatively v. large doses in tuberculosis, subcut. in doses of 0.2 cc. (3 M) of a 1% solut. to begin w. & incr. to 2 cc. (30 M) p.d.—MAX. D.: 0.005 Gm. ($\frac{1}{12}$ grn.) single; 0.01 Gm. ($\frac{1}{6}$ grn.) p.d.

Strychnine Camphorate

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_{10}\text{H}_{16}\text{O}_4 = 534.48$.—Wh. to stlty yellowish cryst. powd.—SOL.: W.—USES, DOSES, &c.: As of the alkaloid.

Strychnine Citrate Merck

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_6\text{H}_8\text{O}_7 = 526.39$.—Wh. cryst.—SOL.: W.—USES, DOSES, &c.: As of the alkaloid.

Strychnine Dichromate

$(\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2)_2 \cdot \text{H}_2\text{Cr}_2\text{O}_7 = 886.72$.—Orange-yellow lustr. cryst.—SOL.: Conc. H_2SO_4 w. blue-violet color; v. diff. W.

Strychnine Formate—B.P.C.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{CH}_3\text{O}_2 = 380.32$.—Almost white, cryst. powd.; 87.9% strychnine.—SOL.: Abt 5 W., A.—DOSE: 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.).

Strychnine Glycerophosphate Merck—N.F. IV

$(\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2)_2\text{PO}_4\text{H}_2(\text{C}_3\text{H}_7\text{O}_2) + 6\text{H}_2\text{O} = 948.82$.—Wh., cryst., or cryst. powd.; abt 70% strychn.—SOL.: Abt 350 W., abt 310 A., stlty C., v. stlty E.—USES, &c.: As of the alkaloid.—DOSE: Aver., 0.0015 Gm. ($\frac{1}{40}$ grn.).

Strychnine Hydriodide

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2\text{HI} + \text{H}_2\text{O} = 479.24$.—Lustr. leafl.—SOL.: eas. A.; stlty W.—USES, DOSES, ETC.—As of the alkaloid.

Strychnine Hydrobromide Merck

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{HBr} + \text{H}_2\text{O} = 433.24$.—Colorl., odorl. needles or wh. powd.; abt 77% strychn.—SOL.: Abt 50 W.; stlty A.—ACTION: Tonic; Sed.—USES: Nerv. affect., chronic alcoholism & insom. fr. over-work.—DOSE: 0.002–0.006 Gm. ($\frac{1}{30}$ – $\frac{1}{10}$ grn.) 2–3 t.p.d.

Strychnine Hydrochloride Merck—Cryst. or Powd.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{HCl} + 2\text{H}_2\text{O} = 406.80$.—Colorl. cryst. or wh. powd.; abt 82% strychn.—SOL.: Abt 30 W., abt 60 A.; (35.5 W., 73 A. [90%] insol. E., B.P.C.).—USES, DOSES, &c.: As of the alkaloid.

Strychnine Hypophosphite Merck—Cryst. or Powd.

Approx. $\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{H}_3\text{PO}_2 + 2\text{H}_2\text{O} = 436.39$.—Wh., cryst. powd.; abt 76.6% strychn.—SOL.: W.—ACTION: Tonic.—USES: Tuberc. affect., scrof., & wasting dis. gen'ly.—DOSE: 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.).

Strychnine Iodate

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{HIO}_3 = 510.23$.—Colorl. to stlty yellowish cryst. powd.—SOL.: W.—ACTION: Tonic.—USES: Paralysis, anesthesia, &c.; chiefly subcut.—DOSE: Not to exceed 0.006 Gm. ($\frac{1}{10}$ grn.) subcut.

Strychnine Lactate

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_3\text{H}_6\text{O}_3 = 424.36$.—Wh. powd.—SOL.: W.—USES, DOSES, &c.: As of the alkaloid.

Strychnine Methylidide

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{CH}_3\text{I} = 476.25$.—Wh., lustr. cryst.—SOL.: A.; stlty W.; insol. E.

Strychnine Nitrate Merck—U.S.P. X—Cryst. or Powd.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{HNO}_3 = 397.31$.—Colorl. needles, or wh. cryst. powd.; abt 84% strychn.—SOL.: 45 W., 150 A., 105 C., & 50 G. at 25° C., 10 boil. W., 80 A. at 60° C., & insol. E., U.S.P.—ACTION: As of the alkaloid.—USES: As of the alkaloid; also used in muscular atrophy, constipation, hydrophobia, & subcut. in diabet. insipidus. Has also been used f. poisoning predatory animals; f. prepar'g poisoned wheat grains f. mice, rats, etc., soak 2 lbs. wheat grains in a solut. of 2 Gm. (30 grn.) nitrate in 250 cc. (abt 8½ fl. oz.) W. f. a couple of days.—DOSE: As of alkaloid; aver. dose 0.002 Gm. ($\frac{1}{30}$ grn.); in diabet. insip., 0.0025 Gm. ($\frac{1}{25}$ grn.) incr. to 0.005 Gm. ($\frac{1}{12}$ grn.) subcut.

Strychnine Phenolsulphonate

Strychnine Sulphophenate, or Sulphocarbolate.
 $\text{—C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_6\text{H}_4(\text{OH}) \cdot \text{HSO}_3 = 508.44.$ —
 Wh. to pink cryst. powd.—**SOL.**: W., A.

Strychnine Phosphate Merck—Cryst. or Powd.

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{H}_3\text{PO}_4 + 2\text{H}_2\text{O} = 468.39.$ —
 Colorl. cryst. or wh. powd.; abt 71% strychn.
—SOL.: Abt 30 cold, more eas, hot. W.; sltly A.
—USES, DOSES, &c.: As of the alkaloid.

Strychnine Salicylate Merck

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_7\text{H}_6\text{O}_3 = 472.38.$ —Wh. leaflets.—
SOL.: Abt 30 W., sltly A.—**USES, DOSES, &c.**:
 As of the alkaloid; espec. in rheum. & chorea.

Strychnine Sulphate Merck—U.S.P. X—Cryst. or Powd.

$(\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2)_2 \cdot \text{H}_2\text{SO}_4 + 5\text{H}_2\text{O} = 856.75.$ —
 Colorl., odorl. prisms, or wh. powd.; v. bitter
 taste; cryst. effloresc. in dry air; abt. 78%
 strychn.—**SOL.**: 35 W., 81 A., & 220 C. at 25°
 C., 7 boil. W., 26 A. at 60° C., freely in G., &
 insol. E., U.S.P.—**USES**: The salt most fre-
 quently prescribed in the U.S.—Its action &
 uses differ but sltly fr. those of the alkaloid.—
 Also extensively used f. destroying rodents.—
DOSE: 0.002–0.004 Gm. ($\frac{1}{30}$ – $\frac{1}{15}$ grn.); aver.
 dose, 0.002 Gm. ($\frac{1}{30}$ grn.).

**STRYCHNINE SULPHOCARBOLATE, or SULPHO-
 PHENATE**—see Strychnine Phenolsulphonate

Strychnine Valerate Merck—N.F. IV

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_5\text{H}_{10}\text{O}_2 = 436.40.$ —Wh., cryst.
 powd.; odor of valerian.—**SOL.**: A., C.; sltly
 E.; v. sltly W.—**USES & DOSES**: As of strychn-
 ine; aver. dose, 0.0015 Gm. ($\frac{1}{40}$ grn.).

STRYCHNINEMETHYLAMMONIUM HYDROXIDE—see
 Methylstrychnine

STYPTIC COLLOID—see Collodion, Styptic

Stypticin

Cotarnine Hydrochloride U.S.P. X Merck.—
 $\text{C}_{12}\text{H}_{13}\text{NO}_3\text{HCl} = 255.64.$ —Hydrochlor. of
 oxid'n product of narcotine.—Light-yellow
 powd.—**SOL.**: v. eas. W., A.—**ACTION**: Styptic;
 Hemostat.—**USES**: Atypical uterine hemor-
 rhages not dependent upon neoplasms or re-
 tained fragments of ovum or upon marked in-
 flammation of endometrium. Also in prolonged
 or excessive menstruation, partic. in young girls,
 & effective in purely climacteric hemorrhages, &
 hemoptysis. Also effective in nose bleed, & in
 bleeding following tooth extraction.—**DOSE**:
 0.03–0.25 Gm. ($\frac{1}{2}$ –4 grn.), as required, 4–5
 t.p.d., in gelatin capsules, or better, sugar-
 coated tablets; in menorrhagia, 0.05 Gm. ($\frac{3}{4}$
 grn.) 4–5 t.p.d.—*Inj.* (urgent cases): 0.1–0.25
 Gm. ($\frac{1}{2}$ –4 grn.) in 10% solut.—*Extern.*,
 as styptic, pure or in strong solut., or in 30%
 gauze or cotton.

do. —Tablets, Sugar-coated

Each contains 0.05 Gm. ($\frac{3}{4}$ grn.) stypticin.—
USES, &c.: As of stypticin.

do. —Tablets for Hypodermic & Dental Use

Each contains 0.05 Gm. ($\frac{3}{4}$ grn.) stypticin.

Styptol

Cotarnine Phthalate.— $(\text{C}_{12}\text{H}_{13}\text{NO}_3)_2 \cdot \text{C}_6\text{H}_4$ -
 $(\text{COOH})_2 = 604.43$ —Yellow, microcryst.
 powd.—**SOL.**: Eas. W.—**ACTION**: Styptic.—
USES: Menstrual hemorrhages not due to
 pathologic-anatomical conditions; dysmenorrh.,
 uterine hemorrhage, menorrhagia, endometritis,
 etc.—**DOSE**: 0.05 Gm. ($\frac{3}{4}$ grn.) 3–5 t.p.d., in
 powd. or tabl.—*Extern.* in 2% solut. by
 instillation, as powd. by dusting-on, or as 30%
 cotton.

Styracin

Cinnamyl, or Cinnyl, Cinnamate.— C_6H_5 -
 $\text{C}_3\text{H}_4 \cdot \text{C}_9\text{H}_7\text{O}_2 = 264.22.$ —Constit. of storax.—
 Wh., or faint yellowish need.—**SOL.**: 20 A., 3
 E., benzin.—**MELT.**: 44° C.—**ACTION**: Antisep.
 & Stim.

STYRACOL—see Guaiacol Cinnamate

STYRAX—see Storax

Styrene

Styrol; Styrolene; Cinnamene; Cinnamol;
 Phenylethylene; Vinylbenzene [or, -zol].—
 $\text{C}_6\text{H}_5 \cdot \text{CH} : \text{CH}_2 = 104.10.$ —Constit. of liq.
 storax; synthet. fr. cinnamic acid, HBr, &
 Na_2CO_3 .—Optically inactive, colorl. to yel-
 lowish, oily liq.—**MISC.**: A., E.—**Sp. Gr.**:
 0.912 at 15° C.—**BOIL.**: 140°–145° C.—On
 long keeping, partic. in light, is converted into
 metastyrene.

m-Styrene

Metastyrol.— $(\text{C}_8\text{H}_8)_n$.—Polymer of styrene,
 by heat.—Colorl., glassy, transp., refractive,
 optically inactive, odorl., tastel., solid.—**SOL.**:
 Sltly boil. E.; insol. A.

STYROL, or STYROLENE—see Styrene

Styrone—Cryst.

Cinnamic, Cinnamyllic, Styrylic, or Phenyl-
 allylic, Alcohol.— $\text{C}_6\text{H}_5 \cdot \text{CH} : \text{CH}_2 \cdot \text{OH} =$
 134.13.—Fr. styracin & KOH by dist'n.—Wh.
 need., or cryst. mass.—**SOL.**: A., E., benzin, G.
—MELT.: 33° C.—**BOIL.**: 250° C.—**ACTION**:
 Deodor. & Antisep.—**USES**: 12.5% solut. in G.
 f. deodor. purposes.—**CAUT.**: Turns dark on
 expos. to light.

do. —Liquid

Styracin remaining fluid because of the presence
 of small quant. of impurities.—Yellow, oily,
 h'ly refractive liq.; hyacinth odor.—**MISC.**: A.,
 E., benzin. &c.—**USES**: Perfumery.

Suberin

Substance, not yet definitely chemically de-
 fined, incrusting cork cells.—Fr. bark of
 Quercus suber (Cork Oak).—Sm. pieces re-
 sembling cork.—Insol. in usual solvents.

Sublimine

Mercury Ethylenediaminesulphate; Ethylene-
 diamine Mercuric Sulphate.— $\text{HgSO}_4 \cdot 2(\text{CH}_2$ -
 $\text{NH}_2)_2 \cdot 2\text{H}_2\text{O} = 452.87.$ —Wh. cryst.; abt 44%
 Hg.—**SOL.**: Eas. W., 10 G.; sltly A.—**ACTION**:
 Surg. Disinf. & Antisep.—**USES**: Inst. of HgCl_2
 in syph. skin dis., gynecology, ophthalmology,

otology, &c.—APPL.: Vaginal douche, 1:500–1000 solut.; collyria, 1:3000–5000 solut.; f. skin disinf. in 1:1000 solut.; f. bladder irrigat. in 1:5000 solut.—A 3%–4% solut. is also inj. subcut. into gluteal muscles in syph.

Succinamide

$C_2H_4(CO.NH_2)_2 = 116.10$.—Fr. ethyl succinate & NH_4OH .—Colorl. need.—SOL.: Sltly cold, eas. boil., W.—MELT.: $243^\circ C$.

Succinchlorimide

$C_4H_4O_2NCl = 133.52$.—Wh. cryst. or cryst. powd.; faint odor of Cl; cont. abt 26% available Cl.—SOL.: W. w. decomp., forming hypochlorous acid; also sol. in abt 50 B., abt 150 A.; sltly in E.—MELT.: $149^\circ C$.—USES: Germicide.—CAUT.: Keep protected fr. moisture.

SUCCINIC ANHYDRIDE—see (Acid) Succinic Anhydride

Succinimide

$(COCH_2)_2NH = 99.07$.—Fr. ammon. succinate by dist'n, or fr. succinamide by heat.—Colorl. need.—SOL.: W., A., E.—MELT.: $125^\circ C$.—BOIL.: $287^\circ C$.—ACTION: Antisep.—Used in form of mercury compound (*q.v.*).

SUCCINITE—see Amber

SUCCINONITRILE—see Ethylene Cyanide

Succinyl Chloride

Succinyl Dichloride.— $COCl.CH_2.CH_2.COCl = 154.97$.—Fr. succinic acid & PCl_5 .—Fum., h'ly refractive liq.—SP. GR.: 1.395–1.415 at $15^\circ C$.—BOIL.: $93^\circ C$. at 15 Mm.

SUCCINYL DICHLORIDE—see Succinyl Chloride

SUCCINYL OXIDE—see (Acid) Succinic Anhydride

SUCCINYL PEROXIDE—see Alphozone

SUCCORY—see Chicory

Sucrol

Duiclin; Valzin; Paraphenetolcarbamide; Parathoxyphenylurea.— $NH_2.CO.NH.C_6H_4.OC_2H_5 = 180.16$.—Lustr. need.; v. sweet taste; 200 times as sweet as cane sugar.—SOL.: E., 25 A., 800 W., 150 boil. W.—MELT.: 173° – $174^\circ C$.—USES: Sweetener.

Sucrose Merck—C.P.

Saccharose; Cane Sugar.— $C_{12}H_{22}O_{11} = 342.24$.—Colorl. cryst. or granules; sweet taste.—SOL.: Abt 0.5 W. abt 200 A.; insol. C. E.

MAXIMUM OF IMPURITIES

Insol. Substcs.	0.000%
Coloring Matter	None
Nonvol. Matter	0.010%
Sulphate (SO_3)	0.003%
Chloride (Cl)	0.002%
Invert Sugar	0.235%
Calcium	0.003%
Heavy Metals	0.000%

USES: Standardizing soluts. used in determ.

reducing sugars; detect'g alkaloids, fats, albumins, thymol, bile acids, sesame oil, HCl, & H_2SO_4 .

do. Merck—U.S.P. X

SOL.: 0.5 W., 170A., at $25^\circ C$., abt 0.2 boiling W., & insol. C., E.—MELT.: $160^\circ C$., B.P.C.—ACTION: Demulcent; Lenitive; Nutrient.—USES: Manuf. syrups, elixirs, & o. galenicals.

Sudan Brown—Fat dye

Pigment Brown; Alphanaphthalene-azo-alphanaphthol.—Brown powd.—SOL.: A., E., oils.

SUDAN I—see Sudan Yellow

SUDAN RED—see Magdala Red

Sudan Red III (A)—Fat dye

Aminoazobenzeneazobetanaphthol; Tetrazenbenzenebetanaphthol.— $C_6H_5.N:N.C_6H_4.N:N.C_{10}H_6OH = 352.27$.—Reddish-brown powd.—SOL.: Eas. C., glac. acetic acid; less eas. A., E., acetone, petrol. E., fixed & volat. oils; hot G.; insol. W.—USES: Coloring fats, spirit lacquers, oils, etc.; also in microtechn. as stain f. zoological, pathologicoanatomical, & vegetable objects, like wax, cutin, suberin, resin, contents of lactiferous ducts, &c., which are colored red, while cellulose membrane remains uncolored.

Sudan Yellow

Anilineazobetanaphthol; Sudan I.— $C_{16}H_{12}N_2O = 248.19$.—Brick-red powd. SOL.: A., w. orange-yellow color; insol. W.—USES: Coloring spirit lacquers & oils.

Sudan Yellow G—Fat dye

Metadioxyazobenzene; Anilineazoresorcinol.— $C_6H_5N_2.C_6H_3(OH)_2 = 214.16$.—Brown powd.—SOL.: A., fats, oils, &c.—USES: Coloring oils, varnishes, &c.

Suet Prepared—U.S.P. X; B.P.

Mutton Suet.—Internal fat of abdomen of Ovis Aries (Sheep), L. purified by melt'g & strain'g.—Wh., solid fat; slt. odor; taste bland if fresh, but rancid on long expos.—SOL.: 2 petrol. E., 45 boil. A., abt. 60 E., insol. W., cold A., U.S.P.—MELT.: 45° – $50^\circ C$., U.S.P.—USES: Pharmaceutical.

do. Benzoated—B.P.

Prepared suet heated w. 3% benzoin f. 1 hr. at $60^\circ C$. & then strained & stirred till cold.

SUGAR, BURN'T—see Caramel

SUGAR; CORN, GRAPE, HONEY, or STARCH—see Dextrose

SUGAR OF LEAD—see Lead Acetate

SUGAR, PECTIN—see Arabinose

SULFONAL—see Sulphonmethane

Sulphaldehyde

Thioaldehyde; Thioacetaldehyde.— $CH_3.CSH = 60.10$ (?).—Fr. aldehyde by H_2S .—Colorl. liq.; v. penetrating, nauseous odor.—SOL.: A., C., E.; alm. insol. W.—ACTION: Hypnotic.—Stated to be three times as active as paraldehyde (Luisini).

Sulpharsphenamine Billon

Disodium 3,3'-Diamino-4,4'-dihydroxyarsenobenzene-*N*-dimethylenesulphonate. (Manufactured by Merck & Co. Inc. by license of Les Etablissements Poulenc Frères, Paris).— $\text{NaOSO}_2\text{CH}_2\text{NH}_2\cdot\text{OH}\cdot\text{C}_6\text{H}_3\cdot\text{As}:\text{As}\cdot\text{C}_6\text{H}_3\text{OH}\cdot\text{NH}\cdot\text{CH}_3\cdot\text{O}_2\text{SONa}$, with inert salts; not less than 20% As.—Orange yellow powd.; odorl. or only a slt odor.—*SOL.*: Eas. W.—*ACTION & USES* & *DOSE*: As of neosarsphenamine. 1 cc. freshly dist. sterilized W. should be used f. any intramusc. or subcut. inj.—Mkt'd in sealed evacuated ampuls cont'g 0.1, 0.2, 0.3, 0.4, & 0.6 Gm. ea. respectively of Sulpharsphenamine.

SULPHARSPHENAMINE BISMUTH—see Bismarsen

SULPHENTHAL—see Phenolsulphonephthalein

SULPHINE—see Primuline Yellow

SULPHOBENZENEAZODIMETHYLANILINE—see Acid Dimethylaminoazobenzenesulphonic

Sulphobenzide

Diphenylsulphone.— $(\text{C}_6\text{H}_5)_2\text{SO}_2 = 218.20$.—Fr. benzene & fum'g H_2SO_4 .—Monocl. prisms or leaflets.—*SOL.*: A., E.; v. sltly W.—*MELT.*: 125°C .

Sulphocarbaniide

Thiocarbaniide; *a-b*-Diphenylthiourea.— $\text{CS}(\text{NH}\cdot\text{C}_6\text{H}_5)_2 = 228.24$.—Fr. aniline, A., KOH, & CS_2 by boil.—Colorl. cryst. leaflets.—*SOL.*: A., E.; sltly W.—*MELT.*: 150°C .

Sulphoichthyolate (Calcium)

So-called Calcium "Sulphoichthyolate."—Brown, tastel. powd.—Cont's abt 2.5% Ca.—*Insol. W*.

Sulphoichthyolate (Lithium)

So-called Lithium "Sulphoichthyolate."—Dark-brown, extr.-like mass.—*USES*, &c.: As of Ichthyol. Us'y in 50% oint.

Sulphoichthyolate (Sodium)

So-called Sodium "Sulphoichthyolate."—Brown mass.—*SOL.*: W., G., & mixt. of A & E.—Best adapted f. prep. Ichthyol pills or capsules because of its firm consistency.

Sulphoichthyolate (Zinc)

So-called Zinc "Sulphoichthyolate."

SULPHONAL—see Sulphonmethane

Sulphonethylmethane Merck—U.S.P. X—Cryst.

Trional; Methylsulfonyl (B.P.); Diethylsulphonemethylethylmethane.— $\text{CH}_3(\text{C}_2\text{H}_5)_2\text{C}:(\text{SO}_2\cdot\text{C}_2\text{H}_5)_2 = 242.30$.—Colorl., odorl., lustr., cryst. powd.—*SOL.*: 200 W. at 25°C ., more sol. boil. W., & sol. A., E., U.S.P.—*MELT.*: 74° – 76°C .—*ACTION*: Hypnotic; *Sed.*: *USES*: To produce sleep, espec. where there is no pain; also in insomn. in pneumon., alcoholic delirium, mental worry, & nervousness. Contraindic. in cardiac dis., & in disturb. of compensation.—*DOSE*: 0.3–2 Gm. (5–30 grn.); aver. dose, 0.75 Gm. (12 grn.).—*MAX. D.*: 3 Gm. (45 grn.) single; 4 Gm. (60 grn.) p. day.

Sulphonmethane Merck—U.S.P. X

Sulfonal; Sulphonal (B.P.); Diethylsulphonemethylmethane; Oxymercaptopol.— $(\text{C}_2\text{H}_5\text{SO}_2)_2\text{C}:(\text{CH}_3)_2 = 228.28$.—Colorl., odor., cryst. powd.—*SOL.*: 365 W., 60 A., 64 E., & 11 C. at 25°C ., 16 boil. W., 3 boil. A., & sol. B., U.S.P.—*MELT.*: 124° – 126°C .—*BOIL.*: 300°C ., B.P.C.—*ACTION*: Hypn.; *Sed.*: *USES*: Insom., epilepsy, night sweats, hiccough, whoop-cough, heart dis. where hypnotic required, chordee, &c. Unsafe except f. occasional use. Do not give if kidneys are not acting normally.—*DOSE*: 0.3–2 Gm. (5–30 grn.) $\frac{3}{4}$ hr. before retiring; aver. dose, 0.75 Gm. (12 grn.).—*MAX. D.*: 4 Gm. (60 grn.) p.d.—*ANTID.*: Stimulants, stomach siphon; sod. bicarbonate, 5–8 Gm. (75–120 grn.) daily.

SULPHOUREA—see Thiocarbamide

Sulphur

Brimstone.—*S* = 32.06.—Occur. U.S. (rather widely distributed); Sicily. Several modifications exist, rhombic, prismatic, amorph., rubbery, & colloidal.—*Ordin.* a pale yellow tastel. brittle solid, becom. darker yellow on heat'g.; eas. ignited in air, burn'g to form SO_2 .—*SOL.*: CS_2 ; *insol. W*.—*SP. GR.*: Abt 2.05.—*MELT.*: Abt 120°C .—*BOIL.*: Abt 445°C .—*USES*: *Techn.*, manuf. paper, sulphite pulp, SO_4 , SO_3 , & sulphides; detect'g leaks in NH_3 lines in refrigerating & ice-making plants; in fertilizers; exterminating insects, vermin, & rodents, in ships, stables, warehouses, etc. by fumig'n; killing insects & vermin in kennels, poultry houses, greenhouses, etc., & on trees; vulcanizing rubber; bleaching textiles (hair, sponges, straw, wicker-ware, silk, wool, felt, hemp, etc.); deodorizing & fumigating sick rooms, hospitals, etc.; making casts & molds; bleaching & preserv'g fruit; manuf. matches & gun powder; fireworks; in acid- & waterproof cements; manuf. niello, various sulphur dyes, ultramarine, etc.

do. Merck—Fused, Sticks

Yellow, solid, cylindrical rolls.—*USES*: As of preced'g.

do. Merck—Precipitated—U.S.P. X

Lac Sulphuris; Milk of Sulphur.—Fine, amorph., pale-yellow powd.—*SOL.*: CS_2 , petrol. E., B., oil turpent., E., C., boil. aqu. soluts alkali hydroxides.—Superior to o. forms in certain applications.—*ACTION*: Lax.; *Alter.*; *Antisept.*; *Diaph.*—*USES*: *Intern.*, constipation, bronchitis, asthma, hemorrhoids, dysentery, catarrh, gout, rheum., sciatica, & skin & liver diseases.—*Extern.*, (in 15%–30% oint.) in scabies & o. skin diseases, rheumat., etc., & as cosmetic in comedones, freckles, &c.—*Techn.*, manuf. rubber; bleaching straw hats; in dental & o. casts & plates.—*DOSE*: 2–8 Gm. (30–120 grn.); aver. dose, 4 Gm. (1 dr.).—*Best prep. f. use in cosmetics*.

do. Merck—Sublimed—U.S.P. X

Flowers of Sulphur.—Fine, yellow powd.; faint odor.—*SOL.*: CS_2 , C., sltly E., *insol. W*., A.—*MELT.*: Abt 115°C .—*USES*: *Extern.*,

chiefly in scabies, skin diseases, etc.; also *intern.*
—DOSE: Aver., 4 Gm. (60 grn.).

do. Merck—Washed—U.S.P. X

Fr. sublimed S by treat. w. NH_4OH , followed by wash. w. W.—Fine, yellow, dry, odorl., tastel. powd.—SOL.: Benzin, oil turpent.; E., C., B.; boil. alkal. solut.; CS_2 .—MELT.: Abt 115° C.—ACTION: Lax.; Alter.; Antisep.; Diaph.—USES: *Intern.*, rheum., catarrh, asthma, hemorrhoids, chron. metallic poisoning, croup, diphth., sciatica, & skin dis.—*Extern.*, as soap, & in 1:2–6 oint. in scabies & o. skin affect., rheum., &c.—DOSE: 2–8 Gm. (30–120 grn.) (us'y w. o. laxatives) as lax.; aver. dose, 4 Gm. (1 dr.) as diaphor., & in catarrh, 0.5–1 Gm. (8–15 grn.) sev'l t.p.d.—CAUT.: Never triturate w. any chlorate (explosion!).

Sulphur Bromide Merck

Sulphur Mono- or Subbromide.—SBr = 111.98.—Yellow liq.; turns red in air.—SOL.: CS_2 ; decomp. by W.—SP. GR.: 2.6 at 15° C.—BOIL.: 54° C.

"SULPHUR, CALCIC LIVER OF"—see Calcium Sulphide, Crude

Sulphur Chloride Merck

Sulphur Subchloride; Sulphur Monochloride.—SCl = 67.52.—Fr. Cl & S directly.—Amber to yellowish-red, fum., oily liq.; penetrating odor, which causes tears & affects the breathing.—SOL.: CS_2 , B.; decomp. by W., A., E.—SP. GR.: Abt 1.70.—BOIL.: Abt 139° C.—USES: Readily dissolves S, hence used in vulcanizing rubber, & oils intended f. printing inks & varnishes; working sugar-cane juices; combined w. CS_2 or olive oil in cements; manuf. factice; manuf. military poison gas, varnishes; finishing & dyeing textiles; hardening soft woods; agricultural insecticides.—CAUT.: Keep well stoppered & handle carefully.

SULPHUR, FLOWERS OF—see Sulphur, Sublimed

SULPHUR GOLD—see Antimony Sulphide Golden

Sulphur Iodide Merck—N.F. V

Sulphur Subiodide.—By fusing together 4 parts I w. 1 part S. The prep. is not sulphur monoiodide, SI, & it is questionable whether it contains the latter or is only a mechanical mixt.—Grayish-black masses; metallic luster; I odor.—SOL.: Abt 60 G., v. eas. CS_2 ; alm. insol. W.; A., E., & solut. KI dissolve the I, & leave the S.—ACTION: Antisep.; Alter.—USES: *Intern.*, glanders, scrof., & chronic skin dis.—*Extern.*, in 5%–10% oint. f. ecz., psoria., prurigo, &c.—DOSE: 0.06–0.12 Gm. (1–2 grn.).—CAUT.: Keep glass-stoppered & cool.

SULPHUR MONOBROMIDE—see Sulphur Bromide

SULPHUR MONOCHLORIDE—see Sulphur Chloride

SULPHUR SUBBROMIDE—see Sulphur Bromide

SULPHUR SUBCHLORIDE—see Sulphur Chloride

SULPHUR SUBIODIDE—see Sulphur Iodide

SULPHUR TRIOXIDE—see (Acid) Sulphuric Anhydride

SULPHUR YELLOW S—see Naphthol Yellow S

"SULPHURATED LIME"—see Calcium Sulphide, Crude

SULPHURATED LIME SOLUTION—see Calcium Sulphide, Crude, Solution

SULPHURIC ETHER—see Ether

SULPHURYLVHYDROXYL CHLORIDE — see Acid Chlorsulphonic

SUMACH—see Rhus Glabra

SUMACH WAX—see Wax, Japan

SUMATRA CAMPHOR—see Borneol

Sumbul—N.F. V; B.P.C.

Musk Root.—Dried rhizome & roots of *Ferula Sumbul*, Hook. fil., or of o. closely related spec. of *Ferula* having a charact. musklike odor, *Umbelliferae*.—HABIT.: Central Asia; East Indies.—CONSTIT.: Angelic (sumbulic) acid; volat. oil (0.2%–0.4%, B.P.C.); resin; valeric acid; methyl-crotonic acid; bitter extractive.—ACTION: Tonic; Stim.; Carmin.; Nervine; Antispasm.—USES: Hysteria, hypochond., neurasth., neural., chlorosis, &c.—*Techn.*, in perfumery, & in manuf. of liqueurs.—DOSES: 0.6–4 Gm. (10–60 grn.), usually as tinct.; aver. dose, 2 Gm. (30 grn.).—Alcoh. extr., 0.12–0.3 Gm. (2–5 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).—Tr. (1:10), 1–4 cc. (15–60 M).

SUNDEW, COMMON, or ROUND-LEAVED—see *Drosera*

SUNFLOWER—see *Helianthus*

Superoxol—Reagent

Hydrogen Peroxide 30% Merck.— H_2O_2 = 34.02 (30% by wt; 100% by vol.).—Colorl., clear liq., acid to litmus paper.—SP. GR.: Abt 1.111.

MAXIMUM OF IMPURITIES

Free Acids	0.000%
Sulphuric Acid (SO_3)	0.0075%
Evap'n Res. (H_2SO_4 , H_3PO_4 , etc.)	0.0045%
Oxalic Acid ($\text{H}_2\text{C}_2\text{O}_4$)	0.035%
Hydrochloric Acid (Cl)	0.001%
Hydrofluoric Acid (HF)	0.005%
Phosphoric Acid (P_2O_5)	0.0005%

USES: Partic. desirable oxidizer f. S in sulphides, SO_2 , & S_2O_3 , of Sn, Ti, U, Va, Ni, Mn, & Cr_2O_3 ; volum. determ. formaldehyde & acetaldehyde; anal. of MnO_2 ; convert. iodates & bromates into iodides & bromides; determ. KI; detect'g picric acid; & as reag. f. blood (Albarran; Assanelli; Bordas; Gantter; Itallie; Schaer; Schmelck), U (Aloy; Fairley); cresol & phenol (Arnold-Mentzel), acetone (Baeyer-Villiger; Collo), tartaric acid (Crismer), benzoic acid, chromates, cupreine, kryogenine, & morphine (Denigès), sulphur (Dickert), milk (Dupouy; Rochariz; du Roi-Köhler; Saul; Schäffer; Storch), peroxydase (Fischel), bile pigments

(Grimbert; Maslow), pilocarpine (Helch), aloes & quinine (Hirschsohn), I (Holmgren), Ti (Jackson), benzoic acid (Jonescu; Denigès), Mn (Klein), sesame oil (Kreis), indican (Landolfi; Loubiou; Porcher), saccharin (Leys), diastase (Lintner), honey (Marpmann), Nb & molybdic acid (Melikow), artif. dyes (Paul), acacia (Payet), Co (Pozzi-Escot), salicylic acid (Ridenour), carcinoma (Salomon), HCN (Schönbein), V (Slawik), alcohol (Stoecklin), Au (Vanino), & vanadic acid (Werther).—CAUT.: Open carefully & keep cool & quiet. Attacks the skin!

Superoxol—C.P.

Hydrogen Peroxide 30% Merck.— H_2O_2 = 34.02 (30% by wt.; 100% by vol.).—Colorl., clear liq.—SP. GR.: Abt 1.111.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.050%
Free Acids.....	0.001%
Sulphuric Acid (SO_3).....	0.015%
Oxalic Acid ($H_2C_2O_4$).....	0.035%
Hydrochloric Acid (HCl).....	0.001%
Hydrofluoric Acid (HF).....	0.005%
Phosphoric Acid (P_2O_5).....	0.005%

USES: As of the Reagent.

do. —Abt 30% H_2O_2 by Wt.

Hydrogen Peroxide 30% Merck; Perhydrol.—30% by wt (or 100% by vol.) H_2O_2 = 34.02.—Chem. pure solut. H_2O_2 absol. free fr. acid.—Clear, colorl. liq.—MISC.: All proport. w. W. or A.—SP. GR.: 1.115–1.119 at 15° C.—ACTION: Disinfect.; Antisep.; Deod.; Styptic; Antizymotic.—USES: *Intern.*, gastrointest. fermentation, flatulence, acute infant. diarrh., abdom. typhoid, cardialgia, gastr. affect., phthisical sweats, hyperacidity, pyloric ulcer & spasms; gastric lavage in 0.25–0.5% solut.—*Hypoderm.*, in 0.2% solut. in cyanide poisoning.—*Extern.*, as 1%–3% solut. (1 + 29 W. = 1% H_2O_2 ; 1 + 9 W. = 3% H_2O_2). The 3% H_2O_2 solut. is as powerful antiseptically as a 1:1000 solut. $HgCl_2$; as 0.3% in lotions or eye drops in blepharitis, conjunctivitis, keratitis; in gynecol. (3% solut., & tampons moist. w. a 12% solut.) in inoperable uterine carcinoma, prolapse, vulvovaginitis, & purulent processes; in surgical operations; hemostat.; in whoop.-cough; diphth., sore throat, rhinitis; gonorrh., stomatitis, angina; suppurative pleuritis, & blenorrea; abscesses & wounds; not suitable for use in otorrhea, as it may give rise to uncomfortable or dangerous symptoms if occluded in some closed passage or cavity; used also to remove adherent bandages, as antisept. f. wounds, sores, abscesses, tubercul. fistulas; in dentistry f. bleaching teeth & as inject. (10% solut.) in alveolar pyorrhea; in dermatol. in ecz., nevi, psoria, favus, syph., ulcers, & mercurial stomatitis; fetid breath. Counteracts poisonousness of diphth. & tetanus toxins, & also of aibrin; also recom. f. steriliz. milk & potable waters.—DOSE: (of 3% H_2O_2 , = 1 + 9 W.), 4–15 cc. (1–4 fl. dr.) well dil. (best as mixt. 0.7 H_2O_2 [30%], 85 W., & syr. orange flower 15).—INCOMP.: Alkalies, albumin, NH_4OH , arsenous salts, balsam Peru, phenol, charcoal, chlorides,

Cl water, alkali citrates, ferric salts, G., Au salts, HCN, hypophosphites, iodides, lime-water, MnO_2 , mercurous salts, nitrates, KBr, permanganates, sulphates, solut. chlorinated soda, tartrates, tinctures.—CAUT.: The undiluted superoxol is caustic to the skin. Open the container carefully, & keep it cool & quiet.

SUPRACAPSULIN, or SUPRADEN—see Epinephrine

Suprarenal Gland—Dried—U.S.P. IX

Suprarenal glands of animals used as food by man, cleaned, dried, freed fr. fat. & powd., & cont'g not less than 0.4% or more than 0.6% epinephrine; 1 part dried gland = approx. 6 parts fat-free fresh gland.—Light, yellowish-brown powd.; charact. odor.—SOL.: partly in W.—USES: Addison's dis., cold in the head; also in all dis. due to loss of vasomotor tone, e.g., menopause, neurasthenia; & also cyclic albuminuria, cardiac affections, Basedow's dis., heart dis., diab. mellitus, & hay fever.—DOSE: 0.2–0.3 Gm. (3–5 grn.) 2–3 t.p.d., 1 hr. aft. meals; in diab., 0.5 Gm. (8 grn.) 3 t.p.d.

SUPRARENALIN, or SUPRARENIN—see Epinephrine

l-Suprarenin—Synthetic

$C_9H_{13}NO_3$ = 183.16.—Wh., odorl. powd.—Alm. insol. A., E., W.—MELT.: 211°–212° C.—ACTION: Vasoconstrictor; Hemostat.—USES: As of adrenalin.

l-Suprarenin Bitartrate—Synthetic

Acid tartrate of l-suprarenin.—Wh. odorl. powd.—SOL.: Eas. W. (solut. levogyrate).—MELT.: 149° C.—ACTION, USES, & DOSES: As of adrenalin.

SWAMP WILLOW—see Willow, Black

SWEDISH GREEN—see Copper Arsenite

SWEET BAY—see Laurel Berries

SWEET BUGLE—see Lycopus

SWEET CANE—see Calamus

SWEET CLOVER—see Melilot

SWEET ELDER—see Sambucus

SWEET FENNEL—see Fennel

SWEET FLAG } see Calamus
SWEET GRASS }

SWEET MARJORAM—see Marjoram

SWEET ROOT—see Glycyrrhiza

SWEET VIBURNUM—see Viburnum Prunifolium

SWEET VIOLET—see Violet

SWEET-WOOD BARK—see Cascarella

SYKOSE—see Saccharin

SYLVINE—see Sylvite

Sylvite—Mineral

Sylvine.—OCCUR.: Vesuvius; Stassfurt; Galicia.—COMPOS.: KCl.—Cryst. Syst.: Reg.—

CLEAV.: Cubic, perfect.—FRACT.: Uneven.—
Brittle.—HARDN.: 2.—SP. GR.: 1.97.—USES:
To prepare o. potassium salt.

SYNAPTASE—see Emulsin

Syntonin

Parapeptone.—Conversion product of albumose by dil. HCl.—Yellowish powd.—SOL.: Dil. HCl; alkali carbonates.

Syphilis Diagnostic von Dungern-Merck

A rapid & simple method of applying the serum diagnosis of syphilis accord. to Wassermann, Noguchi, & von Dungern-Hirschfeld.

The syphilis diagnostic accord. to von Dungern includes the following standardized reagents & apparatus:

1. Sodium chloride tablets, 0.8 Gm. ea.; one dissolved in 100 cc. W. yields the necessary normal saline solut.

2. Complement-paper, on which guinea-pig serum has been dried.

3. Organ-extract (antibody) in alcoholic solut.; the tube must be kept well closed to prevent evap'n of the A.

4. Amboceptor, dried goat's serum hemolytic to human red corpuscles. The contents of the bottle intended f. five tests are dissolved in 2.2 cc. normal saline solut.

5. Two special test tubes & one graduated pipette.

TECHNIQUE.—Collect abt 10 drops of blood fr. the patient's finger in a glass capsule & defibrinate by stir. w. a thin piece of wood (match). The defibrinated blood represents the patient's serum as well as the necessary red blood corpuscles, & the test is now carried out as follows:

Clean the pipette & one of the test-tubes w. A., then thoroughly dry, & measure 0.05 cc. of the alcoholic organ-extract into the test-tube. The pipette is now cleansed w. W. & rinsed w. normal saline solut., whereupon 2 cc. of the latter are added to the organ-extract. At the same time a control test is prepared by measuring 2 cc. normal saline solut. into the o. test-tube. Introduce 2 strips of complement-paper into ea. of the tubes in such a way that they

are completely covered by the fluid. Now measure 0.1 cc. of the defibrinated patient's blood into ea. tube, & allow both test-tubes to stand at the ord. temp. f. an hr, shaking occasionally. After this time 0.2 cc. of amboceptor solut. is added to ea., the tubes are shaken, allowed to stand f. 10–15 min., & again shaken, when the results may be read. In the control tube, in which the organ-extract has been omitted, complete hemolysis will take place within a short time; the liq. becomes clear & assumes a uniform red color. In the test-tube cont. organ extract the same phenomenon will, in the presence of a non-syphilitic serum, occur at the same time or a little later. In the case of positive reaction a clumping of the red blood corpuscles will be observed, but no dissolution. After about 30 min. sedimentation of the corpuscles will be complete, but no hemolysis has taken place, the supernatant fluid is clear & colorl. It is advisable to read the result $\frac{1}{2}$ –1 hr after hemolysis has taken place, in the control tube.

Syrgol

Comp'd of colloidal silver w. albumose.—Small, shiny, black leaflets; 20% Ag.—SOL.: Eas. W.—USES: Gonorrhea.—APPL.: 1–3:1000 solut. by inj.—CAUT.: Solut. is sensit. to light & becomes opalesc.; it may, however, be heated for a short time without decomp.

Syringin

Lilacin; Ligustrin; Oxymethylconiferin.— $C_{17}H_{24}O_9 + H_2O = 390.29$.—Glucoside fr. bark *Syringa vulgaris*, L. (Lilac), & *Ligustrum vulgare*, L. (Privet).—Sm., wh., bulky, tastel. need.—SOL.: A., hot W.; sltly cold W.—MELT.: 192° C.—ACTION: Antipyr., Antiper.—USES: Intermit. & remit. fevers, & malar. affect.—Reliable dose statements lacking.

SYRUP IRON IODIDE—see under Iron Iodide

Syrup Raspberry Merck—N.F. V

Syrupus Rubi Idae. —Fr. juice of fresh, ripe raspberries.—Aromatic.—USES: Flavor.

SYSTOGENE—see Tyramine

T

TABLE SALT—see Sodium Chloride

Tablets f. Urine Investigation

ESTIMATING SUGAR: Stable tablets affording a v. simple method of quantitatively estimating sugar in urine. They consist of:

a. *Copper Sulphate Tablets*, ea. = 0.01 Gm. grape sugar; &

b. *Alkali Tablets*, ea. cont'g alkali enough f. 1 copper tablet.

In use, 1 tablet ea. a & b is diss. in 2.5 cc. boil W., & the urine run in fr. a burette. The quantity of urine required to decolorize the copper solut. indicates the quantity of sugar present, thus:

1 cc. urine = 1% sugar
2 " " = 0.5% "
3 " " = 0.33% "
4 " " = 0.25% "
5 " " = 0.20% "
6 " " = 0.16% "
7 " " = 0.14% "
8 " " = 0.13% "
9 " " = 0.11% "
10 " " = 0.10% "

For purposes of control there is also supplied:

c. *Grape Sugar Tablets* of 0.25 Gm. ea.

DETECTING ALBUMIN: For this there are supplied:

1. *Esbach's Reagent Tablets*: 1 tabl. is diss. in

5 cc. W., & 5 cc. filtered urine added. The tablets may also be used f. quantitative determinations in the albuminometer, 2 tablets being diss. in 10 cc. W.

2. *Riegler's Reagent Tablets*: Diss. 4 tabl. in 5 cc. W. & add to 5 cc. filtered urine.

3. *A & B Tablets*: 1 tabl. "A" is diss. in 10 cc. urine, & then 1 tabl. "B" diss. in 1 cc. W. is added.

4. *Sublimate Tablets*.

TAG ALDER—see *Alnus Serrulata*

TAILED PEPPER—see *Cubeb*

Talc

Soapstone; Steatite.—OCCUR.: Tyrol; Switzerland; Cornwall; Shetland Islands; U. S.; Canada.—COMPOS.: $\text{Si}_4\text{O}_{12}\text{Mg}_3\text{H}_2$.—LUSTER: Wax-like to pearly.—COLOR: Wh., light-green, greenish-gray, dark-green, brown, red, silvery-wh.—STREAK: Wh. or greenish.—CLEAV.: Perfect basal.—Transp. to transl.; greasy feel.—HARDN.: 1–1.5.—SP. GR.: 2.7–2.8.—USES: Lubricant f. machinery & wooden axles; polishing metals; marking cloth; lining furnaces; cosmetics; ornaments & utensils; remov. fat stains, manuf. laundry tubs, hearth stones, crayons, sinks, tips f. gas & acetylene burners, acid tanks, electrical switchboards, molds f. casting iron copper & brass, fire bricks.

Talc Merck—Purified—U.S.P. IX

Talcum; French Chalk.—Finely powd. native hydrous magnes. silicate.—Fine wh. to grayish-wh., odorl., tastel. powd.—Insol. W., dil. acids, & dil. alkalies.—USES: Dust-powd. either pure or w. ZnO, starch, boric acid, &c., f. medicinal & toilet prep'ns; excipient & filler f. pills & tablets, & f. dusting tablet molds; dusting over pills; clarifying liquids (aqu., alcoh., oily, etc.) by filtration.—*Techn.*, as packing material; filler & pigment in paints & varnishes; fireproof & coldwater paints f. wood, metal & stone; polishing glass; soap filler; absorbent f. dyes; dusting molds; in colored crayons; as glove & shoe powd.; as lubricant; as protective coating f. rubber; filler & coating f. paper; manuf. porcelain; electrical insulator; as heat insulator; dry cleaning fabrics; in shoe creams & polishes, etc.

TALCUM—see Talc, Purified

Talcum Powder Merck

Specially prepared, pure, unscented talcum, free fr. acids. Exceptionally soft & fine, & specially intended for use on infants. Supplied in 4 oz. sprinkler-top tins.

TALLOW SHRUB—see *Bayberry Bark*

Tamarind—N.F.V.; B.P.

Tamarind Pulp.—Partially dried ripe fruit of *Tamarindus indica*, L., Leguminosæ, preserved in sugar or syrup.—HABIT.: East Indies; Africa; natur. in West Indies.—CONSTIT.: The pulp cont. tartaric (abt 10%, B.P.C.), citric, & malic acids; potassium bitartrate (abt 8%, B.P.C.); invert sugar (25%–40%, B.P.C.); pectin.—ACTION: Lax.; Refrig.—DOSE: 2–20 Gm. ($1\frac{1}{2}$ –5 dr.); aver. dose, 15 Gm. (4 dr.).

TAMARIND PULP—see Tamarind

TANNAL, INSOLUBLE—see Aluminum Tannate

Tannalbin

Tannin Albuminate Exsiccated.—Light-brown, odorl. powd.; 50% tannin.—SOL.: Slowly in alkaline liquids; insol. W. A.—ACTION: Intest. Astring.; Antidiarr. Reported not acted upon in stomach, but slowly & equably decomp. in the intestines; causes no gastric disturbance, while gently yet firmly astringent on entire intestinal mucosa; without by- or after-effects.—USES: Acute dysent., chron. intestinal catarrh, summer complaint, diar., in phth., &c.—DOSES: 1–4 Gm. (15–60 grn.) hourly until effect noticeable, then 3–5 t.p.d., w. W., & continued in diminished dose f. a few days after diarrhea ceases. *Nurslings*, 0.3–0.5 Gm. (5–8 grn.) ev. $\frac{1}{2}$ hr at first, then 4 t. daily, in gruel or o. mucilaginous vehicle; *children*, up to 1 Gm. (15 grn.) per dose.

do. —Veterinary

USES: Diarrh. in domestic animals.—DOSES: *Foals*, 8–15 Gm. (2–4 dr.) p.d.; *calves*, 3–5 Gm. (45–75 grn.) sev'l t.p.d.; *horses & cattle*, 20–30 Gm. (5–8 dr.) in divided doses of 6–10 Gm. (90–150 grn.).

TANNIN—see Acid Tannic

TANNIN ALBUMINATE—see Albumin Tannate

TANNIN ALBUMINATE, EXSICCATED—see Tannalbin

TANNIN-FORMALDEHYDE—see Tannoform

TANNIN NUCLEOPROTEID—see Protan

TANNIN OXYCHLORCASEIN—see Tannyl

Tannismuth

Bismuth Di(bi)tannate.— $\text{BiOH}(\text{C}_{14}\text{H}_9\text{O}_9)_2 = 868.30$.—Light-yellow, odorl. powd.; sltly astring. taste; 17%–21% Bi.—SOL.: Dil. acids, alkalies; insol. W. A.—ACTION: Intest. Astring.—USES: Chron. intest. catarrh.—DOSE: 0.3–0.6 Gm. (5–10 grn.) 3–5 t.p.d.

Tannoform

Tannin-formaldehyde Merck; Methyl-Ditanin (B.P.C.); Methyleneditannin.— $\text{CH}_2(\text{C}_{14}\text{H}_9\text{O}_9)_2 = 656.31$.—Voluminous, reddish, odorl., tastel. powd.—SOL.: A., alkaline liquids; insol. in W.—MELT.: 230°C . w. decomp., B.P.C.—ACTION: Siccant. Antisep.; Deod.; Astring.—USES: Hyperidrosis, bromidrosis, balanitis, pruritus vaginæ, chron. ulcer of leg, decubitus, burns, soft chancre, weeping ecz., ozena, &c.—Applied pure or in 25%–50% triturations w. talcum in hyperidrosis; in intertrigo as 10% oint. or soap; in hemorrhoids as 5% supposit.—*Intern.* (seldom used; tannalbin is best adapted), as intest. astring. in chron. diar. & gastroenteritis.—DOSE: 0.25–1 Gm. (4–15 grn.) 3–4 t.p.d.—VETER. MED., chron., especially infectious, diar., in domest. animals, *cattle*, 20–40 Gm. (5–10 dr.) p.d.; *calves*, 4 Gm. (60 grn.) sev'l t.p.d.; also extern. as antisep.; astring.; &c.; f. recent wounds.—In dentistry in cements.

Tannyl

Tannin Oxychlorcasein.—Brownish-yellow, odorl., tastel. powd.—Alm. insol. cold W., dil. acids, A., E.; decomp. by alkalies.—ACTION: Intest. Astring.—USES: Tuberculous diarrheas, intest. catarrh, achylia, ulcerous colitis, etc.—DOSE: 1–3 Gm. (15–45 grn.) 3 t.p.d.

TANNYL ACETATE—see Acid Acetyltannic

Tanphenyform

Mixt. of 63.9 tannin albuminate (= 35 tannin approx.), 8.3 methenamine, & 27.8 salol.—ACTION: Intest. Astring.—DOSE: 0.6–2 Gm. (10–30 grn.) 3–5 t.p.d.

Tanret's Solution—Test for Albumin

3.32 Gm. KI, 1.35 Gm. HgCl_2 , & 20 cc. acetic acid in W. to 60 cc.—Gives a wh. ppt. w. albumin (can be used f. quantitative determ. of this in urine).—Also ppts peptone & alkaloids.

do. —Test for Alkaloids

13.546 Gm. HgCl_2 , 49.8 KI, & W. to make 1000 cc.—Ppts sltly acid soluts. of alkaloids.

Tansy

Tanzy.—Lvs & tops of *Tanacetum vulgare*, L., Compositæ.—HABIT.: Asia; Europe; naturalized in N. America (espec. eastern U. S. & Canada).—CONSTIT.: Volat. oil; tanacetin; resin; tannin; mucilage; fat; sugar; malic acid (tanacetic acid ?); tartaric, citric, & oxalic acids.—ACTION: Stim.; Tonic; Anthelm.; Diur.; Emmen.; Diaphor.; Abortifac.—USES: Locally f. bruises, sprains, rheum., &c.—DOSE: 1–4 Gm. (15–60 grn.) given as powd., infus., or fl'dextr.

TANTALIC ANHYDRIDE—see (Acid) Tantalic Anhydride

Tantalum

Ta = 181.50; disc. by Ekeberg in 1802, but first obt'd pure by Bolton in 1905.—Black powd. w. metal. luster; burns when heated in air; hard but malleable & ductile.—SOL.: HF; insol. in o. acids; not attacked by alkali soluts.—SP. GR.: 14.5.—MELT.: 2900° C.—BOIL.: Abt 4100° C.—USES: In electric lamps.

Tantalum Chloride—Sublimed

TaCl_5 = 358.80.—Light-yellow, cryst. powd.; decomp. in moist air.—SOL.: Absol. A.—MELT.: Abt 211° C.—BOIL.: 242° C.—USES: Chlorinating organic substcs.—CAUT.: Keep well stoppered.

TANTALUM PENTOXIDE—see (Acid) Tantalic Anhydride

Tantalum & Potassium Fluoride

TaK_2F_7 = 392.70.—Wh., silky need.—SOL.: Sltly W.

TANZY—see Tansy

Tapioca

Brazilian Arrow-Root; Mandioc, or Cassava, Starch.—Fecula of the root of *Manihot utilisima*, Pohl, Euphorbiacæ.—HABIT.: Brazil; Antilles.—CONSTIT.: Starch.—USES: Nutrient.

TAPOPOTE—see Ephedra

TAR CAMPHOR—see Naphthalene

Tar, Coal—N.F. V

Pix Lithanthracis.—Obt. as by-product in destruct. distil. of coal.—Alm. black, thick liq. or semi-solid.—SOL.: Partly in A., methyl A., acetone, benzine; alm. compl. in E.; compl. sol. B., C., CS_2 ; v. sltly sol. W.—ACTION: Antipruritic.—USES: Chiefly skin dis.

Tar, Pine—U.S.P. X; B.P.

Pix Liquida.—Product obt'd by destruct. distil. of wood of *Pinus palustris*, Miller (*P. sylvestris*, L., B.P.), or o. spec. of *Pinus*, Pinacæ.—HABIT.: U. S.—Blackish-brown semi-liquid; heavier than W.; empyreum. odor & sharp taste.—SOL.: A., C., E., acetone, glac. acetic acid, fixed & volat. oils, & soluts of caustic alkalies; (sltly W.; 10 A. [90%], B.P.C.).—CONSTIT.: Pyrecatchol, phenol, guaiacol, cresol, creosol, methylcreosol, phlorol, toluene, xylene, naphthalene, & o. hydrocarbons; resin; turpentine; empyreumatic oils.—USES: Intern., bronch. affect., colds; fevers; diar., & dis. of gen.-urin. organs.—Extern., skin dis.—DOSE: 0.12–1.3 Gm. (2–20 grn.); aver. dose 0.5 Gm. (8 grn.), us'y as glycerole or syrup.

“TAR, PURIFIED, COLORLESS”—see Anthrasol

Taraxacum—N.F. V; B.P.

Dandelion; Lion's Tooth.—Dried rhizome & roots of *Leontodon Taraxacum*, L., Compositæ.—HABIT.: Europe; natur. in North America.—CONSTIT.: Taraxacin; taraxasterol; choline; resin; levulin; inulin; pectin. Flowers contain resin & bitter substce.—ACTION: Bitter Tonic; Diur.; Stomachic; Hepatic Stimulant.—USES: Liver dis. w. dyspep. & chron. splenic congestion.—Fresh lvs somet. used as salad.—DOSES: 4–12 Gm. (1–3 dr.); aver. dose, 10 Gm. (2½ dr.).—Extr., 0.3–1 Gm. (5–15 grn.).—Alcoh. Extr., 1 Gm. (15 grn.).—Fl'd (or Liq.) extr., 4–8 cc. (1–2 fl. dr.).

TARIRINIC ACID DIODIDE—see Iodostarin

TARTAR, BORATED; CREAM OF—see Potassium & Sodium Borotartrate

TARTAR EMETIC—see Antimony & Potassium Tartrate

TARTAR, FERRATED—see Iron & Potassium Tartrate, Ferrous

TARTAR, SOLUBLE—see Potassium Tartrate

TARTARATED, or TARTARIZED, ANTIMONY—see Antimony & Potassium Tartrate

TARTARATED, or TARTARIZED IRON—see Iron & Potassium Tartrate, Ferric

TARTARATED SODA—see Potassium & Sodium Tartrate

TARTARLITHINE—see Lithium Bitartrate

TARTARUS VITRIOLATUS—see Potassium Sulphate

TARTARATED IRON—see Iron & Potassium Tartrate, Ferric

Tartrazine

Hydrazine Yellow.— $C_{16}H_9O_9N_4S_2Na_3 = 534.30$.—Sod. salt of benzeneazopyrazolone-carboxydisulphonic acid.—Bright, orange yellow powd.—SOL.: Eas. W.—USES: When "certified" is permitted f. color'g foods, confectionery, etc.; also as dye f. wool & silk.

Taurin

Aminoethylsulphonic Acid; Aminoisethionic Acid.— $CH_2(NH_2).CH_2SO_3H = 125.13$.—Decomp. prod. of taurocholic acid. Fr. ox-gall & HCl by boil.—Colorl. to sltly yellowish cryst. or cryst. powd.—SOL.: W.; insol. A., E.

Taxine

$C_{37}H_{52}NO_{10} = 670.61$.—Alkaloid fr. lvs *Taxus baccata*, L.—Yellowish leaflets.—SOL.: A., E., CS₂; sltly W.—MELT.: 82° C. w. decomp.—CAUT.: Poison.

Tea—B.P.C.

Young lvs & leaf-buds of *Thea Chinensis*, L. (*Camellia Thea*, Link: *C. theifera*, Griffith), & o. spec. of *Thea*, *Ternstroemiaceae*.—HABIT.: China; Japan; cult. in India & o. tropical countries.—CONSTIT.: Volat. oil; caffeine (theine, 1%–5%); theophylline, tannin (7%–24%); gallic acid; quercetin; boheic acid; adenine.—USES: Stim.; Popular beverage.—*Techn.*, as source of caffeine.

TEA; ARABIAN or ABYSSINIAN—see *Catha*

TEA, EUROPEAN—see *Veronica*

TEA; MEXICAN, JERUSALEM or SPANISH—see *Chenopodium*

TEA; TEAMSTER'S or WHORE-HOUSE—see *Ephedra*

TEABERRY—see *Gaultheria*

TEAMSTER'S TEA—see *Ephedra*

TELI—see *Sassy Bark*

Tellurium Merck—Sticks

Te = 127.50; disc. by Klaproth in 1798.—Non-metallic element.—Dark-gray powd. burning in the air to TeO₂ w. a greenish-blue flame when heated; or bluish-wh., brittle sticks w. metallic luster.—SOL.: HNO₃; in conc. hot H₂SO₄ & in boil. KOH w. purple-red color; insol. HCl.—SP. GR.: 6.2.—MELT.: Abt 450° C.—BOIL.: 1390° C.—Moderate conductor of heat & electricity.—*Techn.*, staining glass & china; toning silver prints; manuf. special highly resistant alloys.

Tellurium Bichloride

Tellurium Dichloride.—TeCl₂ = 198.42.—Black, amorph. mass.—MELT.: 175° C.—Decomp. by W.

Tellurium Dibromide

TeBr₂ = 287.34.—Blackish-green cryst. mass or gray to black v. hygrosc. cryst.—Decomp. by W.—MELT.: 280° C.—BOIL.: 340° C.

TELLURIUM DICHLORIDE—see *Tellurium Bichloride*

TELLURIUM DIOXIDE—see (Acid) *Tellurous Anhydride*

Tellurium Ore—Mineral

Massive tellurium cont. gold, iron, &c.—COMPOS.: Te(Au, Fe).—USES: Source of tellurium & tellurium compds.

Tellurium Sulphide

TeS₂ = 191.62.—Red when freshly pptd but soon changes to brown & finally a black, amorph. powd.—SOL.: Alkali sulphides (when freshly pptd); insol. W. & acids.

Tellurium Tetrabromide

TeBr₄ = 447.18.—Orange cryst. when cold, red when hot.—SOL.: In a little W., but decomp. by much W.—MELT.: 380° C.—BOIL.: Abt 420° C.

Terebene Merck—Boil 155°–157° C.

A mixt. of terpene hydrocarbons, chiefly dipentene & terpinene, obt'd fr. oil of turpentine.—Colorl. liq.; thyme-like odor; resinifies when exposed to air & light.—SOL.: C., E., absol. A., 3 A., at 25° C., & pract. insol. W., U.S.P.—SP. GR.: 0.860–0.865 at 25° C., U.S.P.; 0.862–0.866 at 15.5° C., B.P.—OPT. ROT.: Not over + 0.3°.—ACTION: Expector.; Antisep.—USES: *Intern.*, in chronic bronch., flatulent dyspep., gen.-urin. dis., emphysema, phth., bronch. dyspnea, &c.—*Extern.*, in 1% aqu. solut. in uterine cancer, gangr. wounds, skin dis., &c. In phthical affect. it is given by inhal. (60 cc. [2 fl. oz.] per week).—DOSE: 0.25–1.3 cc. (4–20 M) w. syrup or on sugar; aver. dose, 0.25 cc. (4 M).—In VETER. MED., in bronchitis; *horses*, 10–20 cc. (2½–5 fl. dr.); *dogs*, 0.5–2 cc. (8–30 M).—CAUT.: Keep well stoppered & cool.

TEREBENTENE—see *Pinene*, *Levogyrate*

Terpene Dihydrochloride

Dipentene Dihydrochloride; Turpentine Dihydrochloride.—C₁₀H₁₆.2HCl = 209.11.—Fr. limonene in glac. acetic acid by HCl gas, or fr. terpin & HCl.—Wh. to yellowish-wh., cryst. mass.—SOL.: A., B., C., E., insol. W.—MELT.: 50° C.—USES: *Intern.*, phthisis, excessive sweating.—*Extern.*, w. carbolic acid as a local anesthetic, & in skin diseases.

Terpene Hydrochloride

Artificial Camphor; Pinene Hydrochloride; Turpentine Monohydrochloride; Turpentine Camphor.—C₁₀H₁₆.HCl = 172.65.—Fr. turpentine oil by HCl gas.—Wh., cryst. mass, resemb. camphor; turpentine & camphor odor.—SOL.: A.; insol. W.—MELT.: Abt 125° C.—ACTION: Antisep.—USES: *Intern.*, phth.; & check secret. of saliva & perspiration.—*Extern.*, w. phenol as a loc. anesth., abort'g boils, prevent suppurat., & in skin dis.—DOSE: 1–2 Gm. (15–30 grn.).—NOTE: This preparation should not be confounded w. *synthetic* ("artificial") camphor, which is isomeric with natural camphor, C₁₀H₁₆O.

"TERPENELE DIHYDROCHLORIDE"—see *Eucalyptol*

TERPENEOL—see *Terpineol*

Terpin Hydrate Merck—U.S.P. X—Cryst. or Powd.

Dipenteneglycol.— $C_6H_3(OH)_2(CH_3)(C_3H_7) + H_2O = 190.23$. Dihydric alcohol, terpin, made fr. pine oil.—Colorl., lustr., cryst. or wh. powd.; sltly bitter taste & slt odor.—SOL.: 13 A., 135 C., 140 E., & abt 200 W. at 25° C., abt 1 boil. glac. acetic acid, 3 boil. A., & abt 34 boil. W., U.S.P.—MELT.: 115°–117° C. when quickly heated; sublimes at abt 100° C. when slowly heated.—ACTION: Expector.; Antisep.; Diur.; Diaph.—USES: Bronch. affect., whoop-cough, throat affect., hay fever, neural., chron. nephritis, gen.-urin. dis.; hemostat. in hemoptysis in incipient tubercul., &c.—DOSES: *Expector.*, 0.2–0.36 Gm. (3–6 grn.); aver. dose, 0.25 Gm. (4 grn.); *diur.*, 0.6–1 Gm. (10–15 grn.); in *hay fever*, 1–1.3 Gm. (15–20 grn.) 3 t.p.d.—Children, in *whoop-cough*, 0.5–1 Gm. (8–15 grn.) single; 3 Gm. (45 grn.) p.d.—In VETER. MED., dogs, 0.5–2 Gm. (8–30 grn.) accord. to size.

Terpineol Merck

“Lilacine; Terpinol.”— $C_{10}H_{17}.OH = 154.19$.—Fr. terpin hydrate & H_3PO_4 by boil'g.—Colorl. liq.; lilac odor.—SOL.: A., E.; alm. insol. W.—SP. GR.: 0.936–0.938 at 15° C.—BOIL.: 218° C.—USES: Perfume; mask odor of iodoform; denaturing fats in soap manuf.

Terpinol Merck

Mixt. of principles having the compos. $C_{10}H_{16}$ & $C_{10}H_{18}O$, produced by act'n of dil. mineral acids on terpin hydrate; the fraction boil. at 168° C.—Oily liq.; odor of hyacinths.—SOL.: A., E.; alm. insol. W.—SP. GR.: Abt 0.885 at 15° C.—ACTION: Bronchial Stim.; Antisep.; Diur.—USES: Diminish expectoration & lessen odor in phth., in hemopt. in tubercul., colds & bronch. affect.—*Techn.*, perfumery, & soap manuf.—DOSE: 0.12–0.3 cc. (2–5 M) ev. 2 hrs.

TERRA ALBA—see Kaolin

TERRA JAPONICA—see Gambir

TESTA PRÆPARATA—see Oyster Shell, Prepared

Testes—Dried, Powder

Fr. testes of steer, by freeing fr. fat & drying; 1 part = 6 parts fresh testes.—USES: Hysteria, hystero-epilepsy, neurasthenia, affections of brain & spinal cord, diabetes, prostatic hypertrophy, & as aphrodisiac.—DOSE: 0.6–2 Gm. (10–30 grn.) p.d.—Also mktd in compressed tabl. of 0.025 Gm. ea.

TETANUS ANTITOXIN, or TOXIN—see Antitoxin, Tetanus

TETBROTHALEIN SODIUM = TETRABROMPHENOLPHTHALEIN SODIUM

TETIOTHALEIN SODIUM = TETRAIODOPHENOLPHTHALEIN SODIUM

TETRA BASE—see Tetramethyldiaminodiphenylmethane

TETRABROMMETHANE—see Acetylene Tetrabromide

Tetrabromphenolphthalein

$C_{20}H_{10}O_4Br_4 = 633.86$.—Fr. phenolphthalein in A. by Br in glac. acetic acid.—Yellowish powd.

—SOL.: In alkalis w. violet color (color discharged by slt excess of acid); E.; v. sltly A.; insol. W.—MELT.: Above 280° C.—USES: By intraven. inj. f. roentgenologic exam. of gall bladder.—*Techn.*, as indicator in alkalimetry (acids = colorless; alkalis = violet).

Tetrabromphenolphthalein-Sodium

Tetrabromphthalein-Sodium; Brom-Tetragnost.— $NaOOC.C_6H_4.C:C_6H_2Br_2O.C_6H_2Br_2ONa = 677.84$.—Pale blue to purplish blue odorl. powd.—SOL.: v. eas. W.; v. sltly A.; insol. E.—USES: Roentgenologic exam. of gall bladder.—DOSE: 4.5–5 Gm. (68–75 grn.) dissolved in 35–40 cc. (9–10 fl. dr.) freshly dist. W., filtered, then sterilized (in boil'g W.), & inj. intravenously in two doses $\frac{1}{2}$ hour apart before breakfast.—CAUT.: The salt undergoes change on expos. to light, hence keep in the dark.

Tetrabromphenolphthalin

$C_6H_4.CO_2HCH(C_6H_2Br_2OH)_2 = 635.88$.—Fr. phenolphthalin & Br in glac. acetic acid.—Wh., cryst. powd.—SOL.: A., B., E., CS_2 .—MELT.: 205° C.

Tetrabromphenolsulphonphthalein

Bromphenol Blue.— $\overline{O}.SO_2.C_6H_4.C:(C_6H_2Br_2OH)_2 = 669.92$.—USES: As indic. in 0.04% alc. solut.; PH = yellow 3.0–4.6 blue.

TETRABROMPHTHALEIN-SODIUM—see Tetrabromphenolphthalein-Sodium

TETRABROMPYROCATECHIN-BISMUTH—see Noviform

TETRACHLORETHANE, SYMMETRICAL—see Acetylene Tetrachloride

TETRACHLORETHENE } see Carbon Dichloride
TETRACHLORETHYLENE }

TETRACHLORETHYLENEDICHLORIDE—see Carbon Trichloride

TETRACHLORMETHANE—see Carbon Tetrachloride

TETRACHLORPHENOLPHTHALEIN SODIUM—see Chlor-Tetragnost

TETRACHLORQUINONE—see Chloranil

TETRADOL = TETRAIODOPHENOLPHTHALEIN SODIUM

TETRAETHYL SILICATE—see Ethyl Silicate

Tetraethylammonium Hydroxide—10% Solution

$N(C_2H_5)_4OH = 147.22 + aq$.—Fr. triethylamine & C_2H_5I , followed by Ag_2O .—Strongly alkal., colorl., caustic odorl. liq.; saponifies fats, & imparts soapy feel to skin.—ACTION: Antirheumatic.—USES: Uric-acid solvent, & in artic. rheumat., gout, etc.—DOSE: 0.3–1.3 cc. (5–20 M) 3 t.p.d. well diluted.—CAUT.: Keep well stoppered.

Tetraethylammonium Iodide

Tetraethylammonium Monoiodide.— $(C_2H_5)_4NI = 257.13$.—Fr. triethylamine & C_2H_5I .—

Wh. to yellowish cryst.—SOL.: W., A.—USES: Organic synthesis.

TETRAETHYLAMMONIUM MONOIODIDE—see Tetraethylammonium Iodide

TETRAETHYLDIPARAMINOTRIPHENYLCARBHYDRIDE SULPHATE—see Brilliant Green

Tetrahedrite—Mineral

Fahlerz; Gray Copper Ore.—OCCUR.: Cornwall, Germany (many places), Bohemia, Tyrol, Hungary, Mexico; U. S. widely distributed.—COMPOS.: $(\text{AsSb})_2\text{S}_7(\text{Cu}_2, \text{Fe}, \text{Zn}, \text{Ag}_2, \text{Hg}_2)_4$.—CRYST. SYST.: Reg. tetrahedr. hem.—LUSTER: Metal. often splendid.—COLOR: Betw. flint-gray & iron-black.—STREAK: Like color, sometimes inclining to brown or red.—FRACT.: Subconch. to uneven, brittle.—HARDN.: 3–4.5.—SP. GR.: 4.4–5.1.—USES: Source of valuable metals.

TETRAHYDROBERBERINE—see Hydroberberine

TETRAHYDRONAPHTHALENE—see Tetralin

TETRAHYDROPARAMETHYLOXYQUINOLINE SULPHATE—see Thalline Sulphate

TETRAHYDROPARAQUINANISOL SULPHATE—see Thalline Sulphate

TETRAIODETHYLENE—see Diiodoform

TETRAIODOFLUORESCIN—see Iodeosine

TETRAIODOFLUORESCINE, POTASSIUM, or SODIUM—see Erythrosine

TETRAIODOPHENOLPHTHALEIN—see Nosophen

Tetraiodophenolphthalein-Sodium Merck

Tetraiodophthalein-Sodium; Iod-Tetragnost.— $\text{NaOOC.C}_6\text{H}_4\text{C:C}_6\text{H}_2\text{I}_2\text{O.C}_6\text{H}_2\text{I}_2\text{ONa} = 865.84$.—Pale blue to dark blue, somewh. hygrosc., odorl. powd.; 53% I.—SOL.: W., A.—USES: Cholecystography.—DOSE: 3.5 Gm. (53 grn.) diss. in 28 cc. (7 fl. dr.) freshly dist. water, filtered thro. a fine filter paper, then sterilized f. 20 min. in a boil. W-bath & injected intraven., preferably betw. 7.30 & 9 A.M. (before breakfast).

TETRAIODOPHTHALEIN-SODIUM—see Tetraiodophenolphthalein-Sodium

TETRAIODOPYRROL—see Iodol

Tetralin

Tetrahydronaphthalene.— $\text{C}_{10}\text{H}_{12} = 132.15$.—Fr. naphthalene by hydrogenation at 150°C . The commercial tetralin is a mixt. of tetralin & decalin (dekahydronaphthalin), etc., & is known as "Tetralin Extra."—Colorl. liq.—SOL.: Amyl & butyl A.; benzin.—BOIL.: Abt 205°C .—SP. GR.: 0.980 at 15°C .—ACTION: Powerful solvent f. organic substcs.—USES: As solvent f. oils, fats, waxes, resins, & gums; cleaning & degreasing fabrics & removing fat stains; a mixt. of 50 benzene, 25 alcohol, & 25 tetralin has been used abroad & proved successful as a fuel inst. of gasoline in automobiles.

Tetramethylammonium Bromide

$\text{N}(\text{CH}_3)_4.\text{Br} = 154.04$.—Colorl., deliq. mass.—SOL.: W.

Tetramethylammonium Chloride

$\text{N}(\text{CH}_3)_4.\text{Cl} = 109.58$.—Deliq., colorl. cryst.—SOL.: W.

Tetramethylammonium Hydroxide

$\text{N}(\text{CH}_3)_4.\text{OH} = 91.13$.—Fr. trimethylamine by CH_3I .—Deliq. cryst.—SOL.: W., A.

do. —10% Solut.

10% solut. $\text{N}(\text{CH}_3)_4.\text{OH}$ in W.—Strongly alkal. liq.; eas. absorbs CO_2 fr. air.

Tetramethylammonium Iodide Merck

$\text{N}(\text{CH}_3)_4.\text{I} = 201.04$.—Prismat., yellow cryst.—SOL.: W.

TETRAMETHYLBENZENE (or, -ZOL), SYMMETRICAL—see Durene

Tetramethyldiaminobenzophenone

Michler's Ketone; Tetramethylparaminobenzophenone.— $\text{CO}(\text{C}_6\text{H}_4.\text{N}[\text{CH}_3]_2)_2 = 268.26$.—Fr. dimethylaniline by COCl_2 .—Wh. to greenish leaflets.—SOL.: A., E., warm B.—MELT.: 172°C .—BOIL.: Above 360°C ., w. decomp.—USES: Manuf. dyes.

Tetramethyldiaminodiphenylmethane

Tetra Base.— $\text{CH}_2(\text{C}_6\text{H}_4.\text{N}[\text{CH}_3]_2)_2 = 254.28$.—Fr. dimethylaniline, fum'g HCl , & formaldehyde.—Colorl. to bluish-wh., lustr. leaflets.—SOL.: A., B., E.—MELT.: 90°C .—USES: Test f. ozone (Arnold-Mentzel), Au & NH_3 (Carney); affords w. NO_2 a straw color, & w. Cl & Br a deep blue; no color w. H_2O_2 .

Tetramethyldiaminodiphenylmethane Hydrochloride

$\text{CH}_2(\text{C}_6\text{H}_4.\text{N}[\text{CH}_3]_2)_2.\text{HCl} = 327.21$.—Sltly bluish, cryst. powd.—SOL.: A.; sltly W.

TETRAMETHYLETHYLENEGLYCOL—see Pinacone

TETRAMETHYLPARAMINO BENZOPHENONE—see Tetramethyldiaminobenzophenone

Tetramethylparaphenylenediamine

Wurster's Reagent.— $\text{N}(\text{CH}_3)_2.\text{C}_6\text{H}_4.\text{N}(\text{CH}_3)_2 = 164.19$.—Fr. dimethylparaphenylenediamine, HCl , & methyl A. by heat.—Cryst. leaflets.—SOL.: Diffic. cold W., more eas. hot & dil. A.; eas. ligroin; v. eas. A., C.—MELT.: 51°C .—BOIL.: 260°C .—USES: Test f. O_3 , H_2O_2 , & ozonizers.

Tetramethylparaphenylenediamine Hydrochloride

$(\text{CH}_3)_2\text{N.C}_6\text{H}_4.\text{N}(\text{CH}_3)_2.\text{HCl} = 237.13$.—Wh. or sltly colored cryst. powd.—SOL.: Eas. A.; diffic. W.—USES: Test f. H_2O_2 & ozone (Wurster), O (Eschbaum), & oxidases (Neumann-Wender).

Tetramethylparaphenylenediamine Paper

Wurster's Ozone Paper (Blue).—Wh. paper, impregnated w. tetramethylparaphenylenedia-

mine.—USES: Detecting H_2O_2 & ozone, which, in neutral or acetic acid solut. develop an intense bluish-violet color; ozonizers, as turpentine, pinewood, &c., also develop the reaction.

TETRAMETHYLTHIONINE CHLORIDE—see Methylene Blue, Medicinal

TETRAMYL SILICATE—see Amyl Silicate

TETRANITRIN—see Erythrol Tetranitrate

TETRANITROANTHRAQUINONE—see Acid Aloetic

TETRANITROCHRYSAZIN—see Acid Chrysaminic

TETRANITRODIOXYANTHRAQUINONE—see Acid Chrysaminic

TETRANITROL—see Erythrol Tetranitrate

TETRAOXYDIPHENYL—see Diresorcinol

TETRAOXYDIPHOSPHOAMINODIARSENOBENZENE—see Galyl

TETRAOXYPHthalOPHENONANHYDRIDE—see Fluorescein

TETRASODIUM PYROPHOSPHATE—see Sodium Pyrophosphate

TETRAZOBENZENE BETANAPHTHOL—see Sudan Red III (A)

TETRYL FORMATE—see *iso*-Butyl Formate

TETTERWORT—see Chelidonium; Sanguinaria

THALLIUM PEROXIDE, or TRIOXIDE—see Thallium Oxide, Thallic

Thalline Sulphate Merck—(Not Thallium Sulphate)

Tetrahydroparaquinanisol (or Tetrahydropara-methyloxyquinoline) Sulphate.—($C_{10}H_{13}NO$) $_2$ · H_2SO_4 + $2H_2O$ = 460.43.—Fr. *p*-quinanisol, HCl, & Sn.—Wh. to yellowish-wh. cryst. or powd.; cumarin-like odor; acid-saline-bitterish taste; turns brown on expos.—SOL.: 7 W., 100 A., 0.5 boil. W.; alm. insol. E.—ACTION: Antisept.; Antipyr.—USES: *Intern.*, typhoid fever, malarial fever, typhus, &c.—*Extern.*, inj. in 1%–2% solut. f. gonorrhea; in chron. gonor. a 5% suspens. in oil; also in bougies.—*Techn.*, as test f. lignin (Czapek; Hegler), & thiophene (Kreis).—DOSE: 0.2–0.5 Gm. (3–8 grn.). In typhoid the initial dose in progressive thallinization is 0.08 Gm. ($1\frac{1}{2}$ grn.) ev. hr, increasg the dose daily by 0.01 Gm. ($\frac{1}{2}$ grn.).—MAX. D.: 0.5 Gm. (8 grn.) single; 1.6 Gm. (25 grn.) p.d. In progress, thallinization, MAX. D. is 0.15 Gm. ($2\frac{1}{2}$ grn.) per hr., & 3.6 Gm. (55 grn.) p.d.—CAUT.: Keep fr. light.

Thallium Merck

Tl = 204.00; disc. by Crookes in 1861.—Heavy, soft, easily fusible metal; bluish-wh. tint; freshly cut surface presents a lead-like, metallic luster; may be rubbed off on paper; oxidizes easily in moist air.—SOL.: HNO_3 , H_2SO_4 ; diff. in HCl.—Sp. Gr.: 11.8.—MELT.: Abt $300^\circ C$.—BOIL.: $1280^\circ C$.—Thallium & its salts are cumulative poisons, causing extravasation of the blood, toxic gastroenteritis, bloody dejections, falling out of hair, &c. The salts mixed w. inert material ($2\frac{1}{2}$ + $97\frac{1}{2}$) are also used as a rat poison.

Thallium Acetate Merck—Thallous

$TlC_2H_3O_2$ = 263.03.—Wh., deliq. cryst.—SOL.: W., A.—USES: Formerly in syph. & in night-sweats in phth.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) p.d.—The remedy causes the rapid falling out of the hair, & has been used extern. in 3% oint. for this purpose with variable results. Has also been used inst. of roentgen rays to cause epilation in children in dis. of hair follicles, trichophytosis, favus, etc., intern., in doses of 0.008 Gm. ($\frac{1}{2}$ grn.) at one dose per kilo (abt 2 lbs) body wt.

Thallium Bromide—Thallous

$TlBr$ = 283.92.—Yellowish-wh., cryst. powd.—SOL.: v. sltly in W.—MELT.: Abt $460^\circ C$.

Thallium Carbonate—Thallous

Tl_2CO_3 = 468.01.—Colorl. cryst.—SOL.: 19 W. at $18^\circ C$; 4.4 boil. W.; insol. A.—MELT.: $272^\circ C$.—USES: Test f. CS_2 (Kurowski); techn., in manuf. imitation diamonds.

Thallium Chloride—Thallous

$TlCl$ = 239.46.—Wh., cryst. powd.—SOL.: v. sltly W.—USES: Acute musc. & artic. rheum.—*Techn.*, in tungsten lamps, & as catalyst in chlorination.—DOSE: 0.012 Gm. ($\frac{1}{2}$ grn.) single; 0.1 Gm. ($1\frac{1}{2}$ grn.) p.d.

Thallium Hydroxide—Thallous

$TlOH$ + H_2O = 239.02.—Yellow needles.—SOL.: Eas. W. w. strong alkaline reaction & turn'g turmeric paper brown.—USES: As test f. ozone (brown color); also as indicator.

Thallium Iodide—Thallous

TlI = 330.92.—Yellow powd.—Alm. insol. W.—USES: In syph. inst. of mercury but is not so well adapted.—DOSE: 0.01 Gm. ($\frac{1}{2}$ grn.) p. day.

Thallium Nitrate Merck—Thalious

$TlNO_3$ = 266.01.—Colorl. cryst.—SOL.: Abt 10 W.; v. eas. hot W.—USES: Quant. determ. of I in pres. of Cl & Br; microchem. detect. halogens & certain o. metals (Au, Pt, U, Th, &c.); prepar. thallium test paper; as indic. in titrating Zn; prepar. silver-thallium nitrate; also w. $KClO_3$, $HgCl$, & resin f. green fire f. signalling at sea.

Thallium Oxide—Thallic

Thallium Peroxide or Trioxide.— Tl_2O_3 = 456.00.—Brown powd.—SOL.: Acids; insol. W.—USES: Mixed w. S in manuf. matches.

do. —Thallous

Tl_2O = 424.00.—Black powd.—SOL.: W., abso. A.—Oxidizes on expos. to air, & becomes insol. in W.—USES: In manuf. of glass having a high coefficient of refraction f. optical purposes (thallium flint glass), & f. artif. gems; test f. ozone (Huizinga; Schönbein).

Thallium Sesquichloride

$TlCl_3 \cdot 3TlCl$ = 1028.76.—Yellow cryst. powd.—SOL.: Sltly cold, more eas. hot, W.

Thallium Sulphate Merck—Thallous

$\text{Ti}_2\text{SO}_4 = 504.06$.—Colorl. cryst.—SOL.: W.—USES: Acute musc. & artic. rheumat.; also as of the acetate.—Chem., as thallium paper in ozonometry, & determ. I in presence of Cl; also f. quant. separat'n of chlorides & iodides.—DOSE: 0.012 Gm. ($\frac{1}{5}$ grn.) single; 0.1 Gm. ($\frac{1}{2}$ grn.) p.d.

Thallium Sulphide—Thallous

$\text{Ti}_2\text{S} = 440.06$.—Microsc., bluish-black, lustr. cryst., or amorph. powd.—SOL.: Min. acids; insol. W.

Thapsia

Deadly Carrot.—Root of *Thapsia garganica*, L., Umbelliferae.—HABIT.: Mediterranean region.—CONSTIT.: Resin; thapsic acid.—ACTION: Irritant; Alter.; Purgat.—USES: Intern., in leanness, chron. pulmon. dis., sterility, &c.—Extern., rheumat., gout, neural., bruises, erup., &c.—DOSE: Fl'dextr., 0.12–0.6 cc. (2–10 M).

Theocylon

Acetylsalicyltheobromine, or Acetylsalicyl-dimethylxanthine, Merck.— $\text{C}_7\text{H}_7\text{N}_4\text{O}_2 \cdot \text{C}_9\text{H}_7\text{O}_3 = 342.22$.—Wh., odorl., pract. tastel., cryst. powd.—SOL.: C., alkalies; insol. W., A., E., dil. acids.—MELT.: 195°C ., w. previous softening.—ACTION: Powerful Diuret.—USES: Diseases of the heart & vascular system, partic. in mitral defects, myocarditis, myodegeneration, arteriosclerosis w. edema & ascites, angina pectoris, cardiac asthma, coronary sclerosis, aortic insufficiency, & acute & chron. nephritis.—DOSE: 0.5 Gm. ($\frac{7}{8}$ grn.) as powd. or tablet, 3–4 t.p.d. In complete suppression 1 Gm. (15 grn.) 2–3 t.p.d.—NOTE: Theocyl should not be given on an empty stomach.

do. —Tablets 0.5 Gm. ($\frac{7}{8}$ grn.) Each

Thebaine Merck

Paramorphine. — $\text{C}_{17}\text{H}_{15}(\text{OCH}_3)_2\text{NO} = 311.27$.—Alkaloid fr. opium (abt 0.2%).—Wh. to sltly yellowish, lustr. leaflets or prisms w. alkal. reaction.—SOL.: A. (solut. levogyrate & alkaline), B., C., E., aniline, pyridine, & piperidine; alm. insol. W.—MELT.: 193°C ., after drying in vacuo.—ACTION: Narcotic & Analgesic, but its value is variously estimated; causes spasms like those developed by strychnine.—USES: Cough, in phth.—DOSE: 0.01–0.1 Gm. ($\frac{1}{16}$ – $\frac{1}{2}$ grn.) or more, per os or subcut. (Fronmüller gave up to 0.36 Gm. [6 grn.]).

Thebaine Hydrochloride

$\text{C}_{19}\text{H}_{21}\text{NO}_3 \cdot \text{HCl} + \text{H}_2\text{O} = 365.76$.—Wh. to sltly yellowish cryst. powd.; levogyrate; neutral react.—SOL.: Eas. hot W. & hot A.—ACTION & USES: As of the alkaloid; also in neurasthenia.—DOSE: In neurasth., 0.05 Gm. ($\frac{3}{4}$ grn.) grad. incr. to 0.15–0.2 Gm. ($2\frac{1}{2}$ –3 grn.); 0.1–0.15 Gm. ($\frac{1}{2}$ – $2\frac{1}{2}$ grn.) said to develop no toxic effect; subcut., in neuralg., 0.01 Gm. ($\frac{1}{16}$ grn.).—MAX. D.: 0.2 Gm. (3 grn.) single; 0.5 Gm. (8 grn.) p.d.

THEINE—see Caffeine

Theobroma Seeds—B.P.C.

Fr. *Theobroma Cacao*, L., Sterculiaceae.—HABIT.: Tropical America, Java, Ceylon, West Indies, etc.—Reddish-brown seeds abt 2.5 Cm. (abt $\frac{1}{2}$ inch) in length, & flattened-ovoid in shape.—CONSTIT.: Theobromine (abt 2%); solid fat (40%–60%).—USES: Source of chocolate (theobroma paste w. sugar & flavoring) & cocoa powd. (theobroma paste deprived of most of its fat & mixed w. starch, sugar, or other substcs); both are used as foods, & also as a vehicle f. disagreeably tasting remedies, coating pills & tablets, etc.

THEOBROMA SHELLS—see Cacao Shell

Theobromine Merck

3,7-Dimethylxanthine; 3,7-Dimethyl-2,6-dioxypurine.— $\text{C}_7\text{H}_2(\text{CH}_3)_2\text{N}_4\text{O}_2 = 180.13$.—Diureid fr. seeds *Theobroma Cacao*, L.—Microcryst., wh. powd.; bitter taste.—SOL.: 1700 cold & 115 boil. W., 1400 cold & abt 260 boil. A. (90%), abt 1400 boil. C., diffc. E., less diffc. amyl A., & alm. insol. B. Eas. sol. in soluts. of alkalies.—ACTION: Diur.; Nerve Stim.—Its double salts are preferably used because of their greater solubility.—USES: Cardiac dropsy; cardial asthma in nephritis & arteriosclerosis; angina pectoris. Theobromine salts are purely diuretic, & have no action on the heart.—DOSE: 0.3–1 Gm. (5–15 grn.) 4 t.p.d., the dose being incr. by 1 Gm. (15 grn.) daily f. 4 days, & then reduced to 4–6 doses of 0.5 Gm. ($\frac{7}{8}$ grn.) ea. per day.—MAX. D.: 5 Gm. (75 grn.) per day.—VETER. MED., horses & cattle, 5–10 Gm. (75–150 grn.); dogs, 0.1–0.5 Gm. ($\frac{1}{2}$ –8 grn.) accord. to size.

THEOBROMINE CALCIUM SALICYLATE—see Theocalcin

Theobromine Hydrochloride

$\text{C}_7\text{H}_8\text{N}_4\text{O}_2 \cdot \text{HCl} = 216.60$.—Wh. cryst. powd.—SOL.: Hot W. w. decomp.—ACTION: Diur.; Nerve Stim.—USES: Abt the same as of the double salts of theobromine.

THEOBROMINE POTASSIUM IODIDE—see Iod-Diuretal

Theobromine Salicylate Merck True Salt

$\text{C}_7\text{H}_8\text{N}_4\text{O}_2 \cdot \text{C}_7\text{H}_5\text{O}_3 = 318.21$.—Fine, wh. need.—SOL.: Sltly cold, eas. boil., W. w. decomp.—ACTION, USES & DOSES: As of theobromine.

“Theobromine Sodio-Acetate” Merck

A mixt. of sod. theobromine & sod. acetate in molecular quant., $\text{C}_7\text{H}_7\text{N}_4\text{O}_2\text{Na} + \text{NaC}_2\text{H}_3\text{O}_2 = 284.16$.—Wh., odorl. or alm. odorl., hygroscop. powd.; abt 63.3% theobromine.—SOL.: Eas. W.; sltly A.—ACTION: Diuret.—USES: As of theobromine sodio-salicylate.—DOSE: 0.5–1 Gm. (8–15 grn.) up to 3 Gm. (45 grn.) p. day.—MAX. D.: Single, 1 Gm. (15 grn.), & 4 Gm. (60 grn.) p. day.—In VETER. MED., horses 10 Gm. (150 grn.), & dogs 1–5 Gm. (15–75 grn.), p. day.—CAUT.: Keep well stop'd.

Theobromine Sodio-Benzozate Merck

Theobromine-sodium & Sodium Benzoate.— $\text{NaC}_7\text{H}_7\text{N}_4\text{O}_2 \cdot \text{H}_2\text{O} + \text{NaC}_6\text{H}_5\text{CO}_2 = 364.21$?—Wh., fine powd.; abt 50% theobromine; eas.

decomp. by expos.—SOL.: v. eas. W.—ACTION: Diur.—USES: Dropsy, nephritis, cardiac diseases.—DOSE: 0.5–1 Gm. (8–15 grn.) 3–4 t.p.d.—MAX. D.: 1 Gm. (15 grn.) single; 6 Gm. (90 grn.) p.d.—CAUT.: Keep fr. contact w. air.

Theobromine Sodio-Salicylate Merck—U.S.P. X

Theobromine-sodium & Sodium Salicylate.— $\text{NaC}_7\text{H}_7\text{N}_4\text{O}_2 + \text{C}_6\text{H}_4(\text{OH}).\text{CO}_2\text{Na} = 362.20$.—Wh., powd., cont'g not less than 46.5% theobromine, & not less than 35% salicylic acid, U.S.P.—Decomp. on expos.—SOL.: 1 W. at 25° C., & sltly in A., U.S.P.—ACTION: Diur.—USES: Cardiac dropsy; nephr., espec. of scar. fever; in dyspnea, & coughs.—DOSE: 0.5–1 Gm. (8–15 grn.) sev'l t.p.d. in powd. or capsules, followed by water; aver. dose, 1 Gm. (15 grn.).—MAX. D.: 1 Gm. (15 grn.) single, & 6 Gm. (90 grn.) p.d., P.G.—In VETER. MED., cattle & horses, 5–10 Gm. (75–150 grn.); sheep, goats & pigs, 1–2 Gm. (15–30 grn.); dogs, 0.1–0.5 Gm. (1½–8 grn.) single, & up to 6 Gm. (90 grn.) p. day.—INCOMPAT.: Acids; acid fruit syrups; extract licorice.—CAUT.: Keep fr. air.

Theobromine Sodio-Sulphate

Theobromine-sodium & Sodium Sulphate.—Wh., powd.; abt 50% theobromine.—SOL.: Warm W.—ACTION, USES, &c.; As of o. theobromine comp'ds.

THEOBROMINE-SODIUM ACETATE—see Agurin

THEOBROMINE SODIUM FORMATE—see Thephorin

THEOBROMINE SODIUM IODOSALICYLATE—see Iodotheobromine

THEOBROMINE SODIUM-SODIUM BENZOATE—see Theobromine Sodio-Benzoate

THEOBROMINE SODIUM-SODIUM IODIDE—see Eus-
tenin

THEOBROMINE SODIUM-SODIUM SALICYLATE—
see Theobromine Sodio-Salicylate

THEOBROMINE SODIUM-SODIUM SULPHATE—see
Theobromine Sodio-Sulphate

Theocalcin

Calcium-Diuretin; Theobromine-Calcium Salicylate.—Odorless, tastel. powd.; 48% theobromine, & 38% salicylic acid.—Insol. W.; sol. in alkalis.—Passes thro. the stomach unacted upon, but is diss. in & absorbed from the intestines.—ACTION: Diuret.—USES: As of diuretin, & partic. in arteriosclerosis & hypertonicity.—DOSE: 0.5 Gm. (7½ grn.) 4 t.p.d.

THEOCIN SOLUBLE—see Acet-Theocin-Sodium

Theominal

Combination of theobromine 0.3 Gm. (5 grn.) & luminal 0.03 Gm. (½ grn.) in tablet form.—ACTION: Vasodilator & Antispasm.—USES: Angina pectoris, arteriosclerosis, vascular disturbance, menopause.—DOSE: 1 tabl. 3. t.p.d.

Theophylline Merck—U.S.P. X

1.3.Dimethylxanthine; 1.3.Dimethyl-2.6.dioxypurine. — $\text{CH}_3\text{N}.\text{CO}.\text{CH}_3\text{N}.\text{C}(\text{N}:\text{CH})\text{:C}(\text{NH}).\text{CO}.$ + $\text{H}_2\text{O} = 198.15$.—Xanthine deriv-

ative found w. caffeine in tea, & isomeric w. theobromine.—Wh., odorl., bitter, cryst. powd.—SOL.: 120 W., 80 A. at 25° C., more eas. hot W., spar. in E., & eas. in alkali hydroxides & NH_4OH , U.S.P.—MELT.: 269°–272° C., U.S.P.—ACTION: Diur.—USES: Cardiac affect., nephr., dropsy, &c.—DOSE: 0.2–0.5 Gm. (3–8 grn.); aver. dose, 0.25 Gm. (4 grn.).—MAX. D.: 0.5 Gm. (8 grn.) single & 1.5 Gm. (24 grn.) p.d., P.G.—VETER. MED., as diuret., dogs, 0.1–0.5 Gm. (1½–8 grn.) p. day f. medium, & 1.5 Gm. (23 grn.) p. day f. large sized, dogs.

THEOPHYLLINE-ETHYLENEDIAMINE—see Euphyllin

Theophylline-Sodium

$\text{C}_5\text{HN}_4\text{O}_2(\text{CH}_3)_2\text{Na} = 202.12$.—Wh. powd.—SOL.: Eas. W.—ACTION, USES, DOSES, &c.: As of theophylline.

THEOPHYLLINE SODIUM ACETATE—see Acet-Theocin-Sodium

Theophylline Sodium Acetate Merck

$\text{C}_5\text{HN}_4\text{O}_2(\text{CH}_3)_2\text{Na}.\text{CH}_3\text{COONa} + \text{H}_2\text{O} = 302.17$.—Wh. cryst. powd.; abt 60% anhydrous theophylline.—SOL.: Abt 20 W. at 25° C.; insol. A., C.—ACTION: Diur.—USES: Cardiac dis., dropsy, nephritis, ascites, pleurisy.—DOSE: 0.3–0.5 Gm. (5–8 grn.).

Theophylline Sodium Salicylate Merck

$\text{C}_5\text{HN}_4\text{O}_2(\text{CH}_3)_2\text{Na}.\text{C}_6\text{H}_4.\text{OH}.\text{COONa} = 362.20$.—Wh. powd.—SOL.: Eas. W.—ACTION: Diur.—USES: Cardiac dis., ascites, dropsy, nephritis; renal sclerosis, tumor, & atrophy; angiosclerosis.—DOSE: 0.2–0.3 Gm. (3–5 grn.) sev'l t.p.d.

Thephorin

Theobromine Sodium Formate.— $\text{C}_7\text{H}_7\text{N}_4\text{O}_2\text{Na}.\text{HCOONa} + \text{H}_2\text{O} = 288.13$.—Wh. powd.—SOL.: W.—ACTION: Diur.—DOSE: 0.5 Gm. (8 grn.) 2–3 t.p.d.

Thermit

A mixt. of eq. pts Fe_2O_3 & powd. Al metal, the mixt. being fired by a special cartridge or igniter.—USES: Welding steel & iron rails, tubes, etc.; obt'g various metals, e.g., Cr, Mn, in compact masses; also in incendiary bombs for military purposes.

Thialdin

$\text{NH}(\text{CH}.\text{CH}_3\text{S})_2\text{CH}.\text{CH}_3 = 163.26$.—Fr. aldehyde-ammonia & H_2S .—Monocl. prisms.—SOL.: Slty W., more eas. in A. & E.—MELT.: 43° C.

Thiersch's Carmine Oxalate

5 Gm. carmine, 5 cc. NH_4OH , 5 cc. W.; mix w. solut. 4 Gm. oxalic acid in 80 cc. W., & add 120 cc. A., then filter.—USES: Stain'g microscopic specimens.

Thigenol

Sodium Oleosulphonate.—Dark-brown, thick liq.—SOL.: W., dil. A., C., G., oils.—ACTION: Alter.—DOSE: 0.2–0.6 Gm. (3–10 grn.).

THIOACETALDEHYDE } see Sulphaldehyde
THIOALDEHYDE }

Thiocarbamide Merck

Sulphourea or Thiourea.— $\text{CS}(\text{NH}_2)_2 = 76.11$.—Fr. NH_4SCN by heat.—Wh. cryst.—SOL.: 11 W., hot A.; sltly cold A., E.—MELT.: 171°C .—USES: Photo. fixing agent, & to remove stains fr. negatives; manuf. intermediates; synthesis of dyes.

Thiocarbamide & Ammonium Bromide

$(\text{CS}(\text{NH}_2)_2)_4 + \text{NH}_4\text{Br} = 402.41$.—Wh., cryst. powd.—SOL.: A., W.; eas. hot absol. A.; alm. insol. C., E., & cold absol. A.—MELT.: $178^\circ - 180^\circ\text{C}$.

THIOCARBANIL—see Oil Phenylmustard

THIOCARBANILIDE—see Sulphocarbanilide

THIOCHROMOGEN—see Primuline Yellow

THIOETHYLETHER—see Ethyl Sulphide

Thiol—Liquid

Mixt. of sulphurated & sulphonated petroleum oils.—Dark-brown liq.—SOL.: W., G.; sltly E. USES: Skin dis. in 5%–20% oint. or aqu. solut.

do. —Powder

Dark-brown powd.—SOL.: W., A.—USES: *Extern.*, dusting powder in skin dis.—*Intern.*, to favor digestion & defecation.—DOSE: 0.1–0.2 Gm. ($1\frac{1}{2}$ –3 grn.) 3 t.p.d.

Thionine

Lauth's Violet.— $\text{C}_{12}\text{H}_{10}\text{N}_3\text{SCL} = 263.68$.—Dark-green powd.; metallic luster.—SOL.: W., A., w. blue-violet color.—USES: Micros., f. stain. nuclei, & in metachromatic investigations (mast cells, mucus).

Thiophene—Synthetic

$\text{S}(\overline{\text{CH}}:\text{CH})_2 = 84.11$.—Fr. sod. succinate & P_2S_3 by heat; also a constit. of coal tar.—Color. liq.—SOL.: Eas. A., B.—SP. GR.: 1.070–1.072 at 15°C .—BOIL.: 84°C .—ACTION: Antiseptic.—USES: Test f. pepper (Grimaldi).

THIOPHENE BINIODIDE—see Thiophene Diiodide

Thiophene Diiodide

Thiophene Biniiodide.— $\text{C}_4\text{H}_2\text{I}_2\text{S} = 335.94$.—Wh. to yellow cryst.; 75.5% I & 9.5% S.—SOL.: A., C., E.—MELT.: 40.5°C .—ACTION: Antisep.—USES: Mastitis, wounds, erysip., bursitis, carcinoma, &c.; applied as a dusting powd., & as 10% gauze.—CAUT.: Keep well stop'd.

Thiophene Tetrabromide

$\text{C}_4\text{Br}_4\text{S} = 399.76$.—Yellow, cryst. powd.—SOL.: A.—MELT.: 114°C .—BOIL.: 326°C .—ACTION: Antisep.

THIOPHOSPHORIC ANHYDRIDE—see Phosphorus Pentasulphide

THIOPHOSPHOROUS ANHYDRIDE—see Phosphorus Trisulphide

Thiosemicarbazide

Aminothiurea.— $\text{NH}_2.\text{CS}.\text{NH}.\text{NH}_2 = 91.13$.—Wh. needles.—SOL.: W.—MELT.: $181^\circ - 183^\circ\text{C}$.

Thiosinamine Merck

Allyl Sulphocarbamide; Allyl Sulphourea or Thiourea; Rhodalline.— $\text{CS}(\text{NH}_2).\text{NHC}_3\text{H}_5 = 116.16$.—Fr. allyl mustard oil & NH_4OH .—Color. cryst.; faint garlic odor; bitter taste.—SOL.: Abt 30 W., eas. A., more diffic. E.—MELT.: 74°C .—ACTION: Resolvent.—USES: *Extern.* (chiefly), urethral stricture, chron. parametral exudates; pyloric, parotid, & esophageal, stricture; palmar contractions, lymphosarcomatous growths, pyloric hypertrophy, cicatricial bands following laparotomy, deafness following otitis media, dis. of connective ear tissue, chron. arthritis, tabes dorsalis, skin cicatrices in lupus & post-neuritic optic atrophy, also in lupus, chronic glandular tumors, scleroderma, & to remove scar tissue. Possesses the power to soften cicatricial tissue & tumors of the uterine appendages.—*Intern.* or *subcut.*, in stricture, corneal opacities, chron. deafness.—*Techn.*, photo. developer; test f. Cd & U (Lemaire); analysis of feces.—DOSE: 0.03 Gm. ($\frac{1}{2}$ grn.) gradly incr. to 0.1 Gm. ($1\frac{1}{2}$ grn.) 2–3 t.p.d.—*Inj.*, parenchym. or hypoderm., 0.06–0.12 Gm. (1–2 grn.) in 10% glycerino-aqueous (4:1) solut. 2–3 t.p. week.—Now usually (& best) given in form of *Fibrolysin* (*q.v.*).

THIOUREA—see Thiocarbamide

THISTLE SAFFRON—see Carthamus

THOMAS BALSAM—see Tolu

THOMPSON'S SOLUTION PHOSPHORUS—see Solution Phosphorus

Thorite—Mineral

OCCUR.: Norway.—COMPOS.: ThSiO_4 .—CRYST. SYST.: Tetrag.—COLOR: Blk.—SP. GR.: 4.5–5.—USES: Source of thorium comp'ds important in incandescent-light industry.

Thorium

Th = 232.15; disc. & named by Berzelius in 1828.—Gray, heavy, infus., radioactive powd.; burns in air to ThO_2 w. brilliant light.—SOL.: Hot H_2SO_4 , aq. regia; diffic. HNO_3 , HCl ; insol. W.; not attacked by aqu. alkalies.—SP. GR.: 11.—MELT.: Abt 1700°C .—Thorium salts are but slightly toxic, & have been recommended f. local applic. in malignant disease; & thorium "emanation" (obt'd fr. the nitrate, *q.v.*) is inhaled in phthisis. Thorium salts constitute 99% of salts used in manuf. incandescent mantles.

THORIUM ANHYDRIDE—see Thorium Oxide

Thorium Chloride Merck

Thorium Tetrachloride.— $\text{ThCl}_4 + 8\text{H}_2\text{O} = 518.12$.—Wh. cryst.—SOL.: W., A.—USES: Incandescent lighting. Has also been used in carcinoma & sarcoma in animals.

Thorium Nitrate Merck

$\text{Th}(\text{NO}_3)_4 + 4\text{H}_2\text{O} = 552.25$.—Abt 50% ThO_2 .—Wh., cryst. masses.—SOL.: v. eas. W., A.—Most important substance used in incandescent lighting.—Thorium nitrate w. 1% cerium nitrate constitutes the usual impregnating fluid f. incandesc. mantles.—ACTION: Local Astrin-

gent.—USES: Its radioactive properties are made use of in medicine, applied locally in malignant disease; the thorium "emanation" (prepared by neutralizing a 1:5 solut. of the nitrate w. NH_4OH in a flask filled 4/5 full) is inhaled in phthisis; also, heated & vapors inhaled, in tuberc. ev. o. day f. 15 min.; & locally as 25% paste in skin dis. partic. of parasitic character.—*Techn.*, test f. ferroferricyanides (Browning).

Thorium Oxide Merck

Thorium Anhydride.— $\text{ThO}_2 = 264.15$.—Wh., heavy, infus. powd.—Insol. W. & dil. acids; decomp. by H_2SO_4 .—USES: Medicinally, as a nontoxic contrast substance intern. or rectally, f. taking roentgen-ray pictures of the intestines; also heated, & vapors inhaled, in tuberculosis, ev. o. day f. 15 min.—*Techn.*, incandescent lighting.—DOSE: Adults, 20–30 Gm. (5–8 dr.); childr., 10–15 Gm. ($2\frac{1}{2}$ –4 dr.). Given as a bolus, or suspended in compots, kefir, foods, broth, etc.

THORIUM PLATINOCYANIDE—see Platinum & Thorium Cyanide

Thorium Sulphate Merck

$\text{Th}(\text{SO}_4)_2 + 4\text{H}_2\text{O} = 496.33$.—Wh. cryst. powd.—SOL.: Sltly W. at ordin. temp.; in cold W. passes into the enneahydrate, & thus becomes more soluble.

THORIUM TETRACHLORIDE—see Thorium Chloride

Thorium & Sodium Citrate Solution

Neutral, aqu. solut. made fr. Thorium nitrate & sod. citrate, & representing 10 Gm. thorium nitrate in 100 cc. (f. details f. method of prepar'g see J. A. M. A., 1915, I, 2126).—Solut. is opaque to roentgen rays, & is used espec. in the diagnosis of dis. of the renal pelvis & urinary bladder; it is employed chiefly f. cystograms.—The solut. should be sterilized by boil'g bef. use.

THORN APPLE—see Stramonium

THOROUGHWORT—see Eupatorium

Thoulet's Solution—For Separating Minerals

Conc., aqu. solut. KI & HgI_2 .—SP. GR.: 3.17 at 15° C.—USES: For separ. minerals of different sp. gr.

THOUSAND-LEAF—see Achillea

THREE-LEAVED IVY—see Rhus Toxicodendron

Thresh's Solution—Test for Alkaloids

Dissolve 2.4 Gm. bismuth citrate, w. the aid of suff. NH_4OH in W. to make 30 cc.; mix w. a solut. 2 Gm. KI in 45 cc. HCl.—The solut. gives a ppt. w. albumin, & w. alkaloids in acidul. solut.

THRIDACE—see Lactucarium, French

Thromboplastin Solution

Solution Brain Extract.—An extract of cattle brain in physiol. solut. NaCl.—ACTION: Hemostatic.—USES: Locally in hemorrhages, partic.

fr. oozing surfaces, scar tissues, & nosebleed; also in surgery of the bones, glands, nose, & throat.

do. —Hypodermic

Specially prep'd f. subcut. or intraven. inj., but is contraindicated in arteriosclerosis, aneurism, heart weakness, phlebitis, varicose veins. & in certain stages of syph.—DOSE: 10–20 cc. ($2\frac{1}{2}$ –5 fl. dr.) ev. 24–72 hrs.

Thuja—N.F. V

Arbor Vitæ; Yellow Cedar; False White Cedar; Tree of Life.—Dried, leafy young twigs of Thuja occidentalis, L., Pinaceæ.—HABIT.: North America; cultiv. in Europe.—CONSTIT.: Volat. oil (thujon & fenchon); thujin; thujetic acid; tannin; pinipicrin.—ACTION: Diaph.; Diur.; Emoll.; Antisyph.; Antirheum.; Anthelm.; Astring.; Styptic (extern.); Emmen.; Antiper.; Alter.; Vermif.—USES: Intermit. fever, scurvy, cough, rheum., amenor., & worms.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose, 2 Gm. (30 grn.).—Fl'dextr., 2–4 cc. (15–60 M).

Thuringite—Mineral

Owenite.—OCCUR.: Thuringia; Harpers Ferry, U. S.—COMPOS.: Si_6O_{41} (Al, Fe) (Fe, Mg) $_8\text{H}_{18}$.—CRYST. SYST.: Microcryst.

Thyme—N.F. V

Dried lvs & flowering tops of Thymus vulgaris, L., Labiate.—HABIT.: Southern Europe; cult. in gardens.—CONSTIT.: Volat. oil; tannin; gum.—ACTION: Antisep.; Antispasm.; Carmin.; Antipyr.—USES: Intern., diar., whoop-cough, &c., & as condiment.—Extern., in arom. herbal baths, cataplasms, & fomentations, in contusions, skin dis., &c.—DOSE: Aver., 4 Gm. (1 dr.).—Fl'dextr., 1–4 cc. (15–60 M).

THYME CAMPHOR—see Thymol

THYMIODE, or THYMIODOL, or THYMODIN—see Thymol Iodide

THYMOÏL—see Thymoquinone

Thymol Merck—Reagent

$\text{C}_6\text{H}_3(\text{CH}_3)\text{OH}(\text{C}_3\text{H}_7)[1:3:4] = 150.16$.—Colorl., transluc. cryst.—SOL.: Abt 1100 W.; eas. A., C., E.—MELT.: Abt 50° C.—BOIL.: Abt 230° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.030%
Free Acid	0.000%
Phenol	None

USES: Detect'g sugars, indican; colorimetric determ'n of Ti; reag. f. lignin (Czapek), allyl A. (Denigès), C., bromoform, & iodoform (Dupouy), glucose (Linde-Molisch), coniferin (Molisch), tannin (Saul), & iodoform (Vitali).

Thymol Merck—U.S.P. X—Cryst.

Thyme Camphor; Thymic Acid; Paraisopropylmetacresol; Methylnormalpropylphenol.— $\text{C}_6\text{H}_3(\text{CH}_3)\text{OH}(\text{C}_3\text{H}_7)[1:3:4] = 150.16$.—A phenol occur. in volat. oil of Thymus vulgaris, & some o. volatile oils (e.g., fr. T. Serpyllum, Ptychotis Ajowan, & Monarda punctata).—Colorl., transluc. cryst., or cryst. powd.; thyme-

like odor; pung., somewh. caustic taste.—**SOL.**: Abt 1000 W., abt 1 A., 0.7 C., 1.5 E., & 1.7 olive oil, at 25° C., & also sol. glac. acetic acid & oils, U.S.P.—**MELT.**: 48°–51° C.—**SP. GR.**: 1.028 at 15.5° C., B.P.C.—**BOIL.**: 232° C., B.P.C.—**ACTION**: Antisep.; Antipy.; Anthelm.—**USES**: *Intern.*, rheum., gout, chyluria, typhus, whoop-cough, influenza, gastric fermentation, &c.; also in hookworm, in enemas in amebic dysent. & subcut. in trichinosis.—*Extern.*, inhaled in bronch., coughs, coryza, &c.; f. toothache & mouth wash; & f. wounds, ulc., & skin dis. In dentistry & surgery 1% soluts. are used.—*Techn.*, destroying mold & herbarium parasites, preserv. anatom. specimens & urine, embalming corpses, &c.—**DOSES**: 0.06–0.6 Gm. (1–10 grn.); aver. dose, as *antisept.*, 0.12 Gm. (2 grn.), & as *anthelmint.* 2 Gm. (30 grn.) divided into 3 doses; as *antipyret.*, 0.5–1 Gm. (8–15 grn.); as *anthelmint.* (f. *Tricocephalus dispar* & *Anchylostoma duodenale*) 8 Gm. (120 grn.) in 12 divided doses given at intervals of 15 min.; in *trichinosis*, 2–3 cc. (30–45 M) of a solut. 3.3 Gm. in 50 cc. sterile olive oil subcut. or intramusc. daily f. 7 days; in *ameb. dysent.*, 10 cc. of a 1:10 solut. in eq. parts A. & E. to 1 liter W. f. an enema.—The action of the thymol is said to be greatly increased by giving sod. bicarbonate at the same time, so that smaller doses of thymol may be made to suffice.—**INCOMP.**: Acetanilid, antipyrine, butylchloral hydrate, camphor, monobromated camphor, phenol, chloral hydrate, euphorin, menthol, quinine sulphate, salol, or urethane, in trituration; gold salts; spt nitrous ether.

THYMOL BLUE—see Thymolsulphonphthalein

Thymol Carbonate

Thymotal; Tyratol.— $(C_{10}H_{13}O)_2CO_3 = 358.31$.—**WH.**, colorl. cryst.; thymol odor; volatilizes w. steam.—**SOL.**: A.; eas. in C., E., CCl_4 ; insol. W., acids, alkalies.—**MELT.**: 55°–56° C.—**ACTION**: Tonic.—**USES**: Tape worm, pin worms, &c.—**DOSES**: Adults, 2 Gm. (30 grn.) 3 t.p.d.; children, 0.5–1 Gm. (8–15 grn.).

Thymol Iodide Merck—U.S.P. X

Dithymol Diiodide; Aristol; Diiododithymol; Annidalin; Thymotol; Iodistol; Iodohydromol; Iodothymol; Iodosol; Iosol; Iothymol; Thymiodide; Thymiodol; Thymodin.— $(C_6H_2CH_3 \cdot OIC_3H_7)_2 = 550.13$.—**Fr.** thymol in NaOH solut. by I in KI solut.—**Red-brown powd.**; not less than 43% I when dried over H_2SO_4 .—**SOL.**: C., E., collodion, oils; sltly A.; insol. W. or G., U.S.P.; (10 C., 10 E., 50 liq. paraffin, CS_2 , B.P.C.).—**ACTION**: Dermic & Antisep.; succedaneum f. iodoform extern.—**USES**: *Extern.*, rhus poisoning, psori., syph. ulc., syph. neopl.; carcinoma; burns; cicatr. wounds, as dust. powd., solut. or oint.; in supposit. in chron. dysent.—**APPL.**: 10% solut. in oils, collodion, or as oint. In prep'g solut. avoid heat.—**INCOMP.**, acids, A., NH_4OH , $HgCl_2$, metal oxides, alkalies, starch, & alkali carbonates.—**CAUT.**: Sensitive to light; keep in dark bot.

Thymolphthalein

$O.CO.C_6H_4.C(C_{10}H_{13}O)_2 = 430.38$.—**Fr.** thymol, $ZnCl_2$, & phthalic anhydride by heat.—

Colorl. needles.—**SOL.**: Eas. A., acetone; in caustic alkalies w. blue, & in H_2SO_4 w. carmine red, color; in C., E.—**MELT.**: 245°–246° C.—**USES**: Test f. blood in feces (using a 1% colorl. aqu. solut. obt'd by boil'g w. 25 KOH & 10 Zn-dust; the feces are treated w. glac. acetic acid, & 25–30 drops of the extract filtered off & mixed w. 20 drops of the test solut. mixed w. 15 drops H_2O_2 added—blood is indicated by the developm't of a grayish-blue ppt. on shak'g & allowing to stand); also as an indicator in solut. of 0.4 Gm. in 500 cc. A. & 500 cc. W. (acids = colorl.; alkalies = blue; **PH** = 9.3–10.5; satisfactory f. inorganic acids & bases, but does not respond to organic bases).

Thymolsulphonphthalein

Thymol Blue.— $O.SO_2.C_6H_4.C(C_{10}H_{13}O)_2 = 466.44$.—**USES**: As indic. in 0.04% alcoh. solut.; **PH** = red 1.2–2.8 yellow; yellow 8.0–9.6 blue.

Thymoquinone

Thymoill.— $C_6H_2O_2[1-4].CH_3[2].C_3H_7[5] = 164.15$.—**Fr.** thymol (or α -thymolsulphonic acid), MnO_2 , & H_2SO_4 by heat; or fr. aminothymol & Br water.—Brownish-yellow cryst.—**SOL.**: A., C., E.—**MELT.**: 45.5° C.

THYMOTAL—see Thymol Carbonate

THYMOTOL—see Thymol Iodide

Thymus Gland—Dried—Powd.

Fr. the fresh thymus glands of calves & sheep; 1 part = 6 parts of the fresh gland.—Contains adenine (1.919% in dry, & 0.179% in fresh, tissue, B.P.C.); guanine; leucine; xanthine; hypoxanthine, & also iodine.—**USES**: Struma, Basedow's dis.; also cancer, exophthal. goiter, & piles; chlorosis, & pseudohypertrophic myopathy.—**Dose**: 2.5–5 Gm. (40–75 grn.) per day; 0.12–0.25 Gm. (2–4 grn.), B.P.C.—**Liq. extr.**, 0.3–1 cc. (5–15 M).

THYMYL ACETATE—see Acetylthymol

Thyraden

Standardized Dried Extract Thyroid Gland.—Lactose trituration of the dried extract of thyroid gland; 1 part = 2 parts fresh gland; 1 Gm. (15 grn.) cont. 0.0007 Gm. ($\frac{1}{85}$ grn.) I.—Light-brownish, sweet powd., free fr. ptomaines.—**ACTION**: Alter.; Antifat.—**USES**: Myxedema, cretinism, psoria., obesity, &c.—**Dose**: 0.12–0.25 Gm. (2–4 grn.) 3 t.p.d., grad'ly incr. to 0.5 Gm. (8 grn.) if necessary; children, $\frac{1}{4}$ – $\frac{1}{2}$ as much.

Thyresol

Santylmethyl Ester.— $C_{15}H_{25}O.CH_3 = 234.29$.—**Alm. colorl. liq.**—**SOL.**: A., C., E., oils.—**SP. GR.**: Abt 0.94.—**USES**: Gonorr.—**Dose**: 0.5 cc. (8 M).

Thyreoidectin

Reddish powd. obt'd fr. the blood of thyroidectomized animals.—**USES**: Exophthalmic goiter.—**Dose**: 0.3–0.6 Gm. (5–10 grn.).

Thyroid—U.S.P. X

Dried thyroid glands of domesticated animals used as food by man, freed fr. connective tissue

& fat, dried & powd'd, & cont'g not less than 0.17% or over 0.23% I; 1 part = approx. 5 parts fresh gland; also cont's thyroxin (*q.v.*).—Yellowish powd.—**ACTION, USES & DOSES:** As of Thyroidin; aver. dose, 0.06 Gm. (1 grn.).

THYROID GLAND, STANDARDIZED DRIED EXTRACT
—see Thyraden

Thyroidin Merck

Dried & powdered thyroid glands of sheep.—0.4 Gm. (7 grn.) of the powd. represent active constituents of a fresh thyroid gland of medium size, *i.e.*, 1 part = 6 parts fresh gland.—Whitish powd.; contains at least 0.18% I organically combined.—**ACTION:** Alterative; Antifat.—**USES:** Myxedema, puerperal eclampsia, hay fever, skin dis., idiocy; also cretinism, psoriasis, acute & chron. eczema, lupus, ichthyosis, lepra, obesity, cerebral anemia, prurigo, iodide-idiosyncrasy, dwarfed growth, spasmodic torticollis, retarded callus formation in fractures, agalactia, neurasthenia, diabetes, &c. Contraindicated in hyperthyroidism, cardiac instability, extreme nervousness; excessive dosage may cause tachycardia, tremor, palpitation, nervousness, dyspnea, & diarrh.—**Dose:** 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.) grad'ly incr. to 0.5 Gm. (8 grn.) 2–3 times per day in powd. or tabl.—**ANTID.:** Arsenic (Fowler's solut.) in ordinary doses.

do. Merck—Compressed Tablets, 0.03 Gm., 0.6 Gm., & 0.12 Gm. ($\frac{1}{2}$ grn., 1 grn., & 2 grn.) Each

THYROIDINE—see Iodothyrene

Thyroxin—U.S.P. X

Triiodo-oxyindol- β -propionic Acid.—($C_8H_5ON_3$). C_2H_4COOH = 584.90.—Active principle of thyroid gland.—Wh., or sltly yellow, needle-like, odorl. cryst. or powd.; cont's not less than 63% I.—**SOL.:** Solut. of alkali hydroxides (fr. which pptd by NaCl); insol. W., & pract. insol. A. & o. usual organ. solvents.—**ACTION & USES:** As of dried thyroid.—**Dose:** 0.0002–0.002 Gm. ($\frac{1}{300}$ – $\frac{1}{20}$ grn.); aver. dose 0.0005 Gm. ($\frac{1}{120}$ grn.). The smallest dose is always to be given, & increased by larger trial doses.

Tilia—Fr. Cod.

Basswood; White Wood; Linn Tree; Linden.—Flowers of *Tilia platyphylla*, *Scopoli*, & *T. sylvestris*, Desf., Tiliaceæ.—**HABIT.:** Europe; Asia; cultv. in U. S.—**CONSTIT.:** Volat. oil; pectin; tannin; sugar; fat; wax; color. matter.—**ACTION:** Antispasm.; Diaph.; Stim.; Tonic.—**USES:** Hysteria, indigestion; local & general baths & steam baths, & in mouthwashes, gargles, inhalations, &c.—**Dose:** 2–5 Gm. (30–75 grn.) in infus. or tinct.

Tin Merck.—C.P.—Mossy, Gran., or Sticks

Sn = 118.70.—Soft, alm. silver-wh. metal.—**SOL.:** HCl, HNO_3 + HCl, hot H_2SO_4 , NaOH, KOH; w. HNO_3 forms metastannic acid insol. W.—**SP. GR.:** Abt 7.29.—**MELT.:** 232° C.

MAXIMUM OF IMPURITIES

Arsenic (As).....	0.001%
Copper (Cu).....	0.000%
Iron (Fe).....	0.005%
Lead (Pb).....	0.050%
Zinc (Zn).....	0.00%

USES: Reducer; separ. H_3PO_4 fr. alkaline earths; prep'g $SnCl_2$ & standard Sn solut. f. determ'g Sn by the I method; also as reag. f. As (Ferraro), pinolin (Grimaldi), & I in HNO_3 (Stein).

do. Merck—Gran. (formerly called Powd.) abt No. 20 Mesh, Mossy, Shot (formerly called Granular), or Sticks

DESCRIPT., SOL., ETC.: As preced'g.—**USES:** Tin & its alloys are used in manuf. utensils f. domestic & industrial purposes; plating sheet iron & copper; tin foil; mirrors; enclosure f. foods to prevent drying out; soldering; tin "diamonds," tin luster, &c.; prepar. tin salts.

do. —Fine Powd. or Filings

Fine gray powd. or lustrous particles.—**ACTION:** The precip. & filings are used intern. as Tenuicide.—**Dose:** 0.5 Gm. (8 grn.) 4 t.p.d.—**Max. D.:** 5 Gm. (75 grn.) p.d.—**Extern.,** as dusting powd. in corneal opacities.—**Techn.,** both filings & pptd powd. are used as reducers (us'ly w. HCl) in chem. manuf.

Tin Acetate—Stannous

$Sn(C_2H_3O_2)_2$ = 236.77.—Yellowish powd.—**SOL.:** Dil. HCl; decomp'd by W.—**USES:** *Techn.*, mordant, & as discharge in dyeing substantive colors on cotton.

Tin Amalgam

Gray pieces w. metal. luster.—**USES:** Dental cements, &c.

TIN ASH—see Tin Oxide, Gray

TIN BICHLORIDE—see Tin & Sodium Chloride

TIN "BI(DI)CHLORIDE"—see Tin Chloride, Stannic, Fuming

Tin Bisulphide Merck—Stannic

Tin Disulphide; Mosaic Gold; Tin Bronze.— SnS_2 = 182.82.—Golden leaflets; metallic luster; fatty feeling to the touch like talc.—**USES:** *Medic.*, as tenniicide.—*Techn.*, f. gilding & bronzing metal, gypsum, wood, & paper, usually suspended in lacquer or varnish.—**Dose:** 0.6–1.3 Gm. (10–20 grn.) sev'l t.p.d.

Tin Bromide—Stannic—Fuming

Tin Tetrabromide.— $SnBr_4$ = 438.38.—Wh. cryst. mass; fumes strongly on expos. to air.—**SOL.:** Eas. W.—**MELT.:** Abt 30° C.—**BOIL.:** 203° C.

do. —Stannous

Tin Dibromide.— $SnBr_2$ = 278.54.—Yellowish powd.—**SOL.:** v. dil. HCl; decomp. by W. w. pptn of tin oxybromide.—**MELT.:** 215° C.—**BOIL.:** 619° C.

TIN BRONZE—see Tin Bisulphide

Tin Chloride Merck—Stannic—Fuming

Tin "Bi(di)chloride" (improperly), or Tetra-chloride; Fuming Spirit of Libavius.— $\text{SnCl}_4 = 260.54$.—Colorl., fum., caustic liq.—SOL.: W.; forms w. $\frac{1}{3}$ its wt W. a cryst. hydrate (butter of tin).—SP. GR.: 2.23 at 15° C.—BOIL.: 115° C.—USES: *Techn.*, as mordant; reviving colors; manuf. fuchsin; dyeing w. iodine green; weighting silk; tinning vessels; bleaching sugar; dehydrating agent in organ. syntheses; also as test f. glucose (Bizzari), bile acids (Casali), cesium (Stolba), & hydrastine (Vitali).

Tin Chloride Merck—Reagent—Stannous

$\text{SnCl}_2 + 2\text{H}_2\text{O} = 225.65$.—Colorl., cryst.—SOL.: Less than 1 W. + a little HCl.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.004%
Ammonium Comp'ds (NH_3)	0.003%
Arsenic (As)	0.0002%
Alkali & Earths	0.050%
Iron (Fe)	0.001%

USES: Active reducer in qualit. & quantit. anal., in organ. synthesis; detect'g Pt; indicator in determ'g sugar; determ'g Cu, Fe; reag. f. brucine & also f. As (Bettendorff; Immendorf; de Jong; Schlickum), picric acid (Christel; Roussin), Co (Danziger), Au (Donau), alkaloids (Godefroy), NH_3 , Li, & Na (Hager), SO_2 (Heintz), gurgun balsam (Hirschsohn), nitrobenzene (Jacquemin), Hg (Jolles; Lombardo), glucose (Maumene), morphine (Reichard), Bi (Schneider), sesame oil (Soltsien), caramel & mallow coloring (Straub), balsams (Utz), tungstic acid (Zettnow).

Tin Chloride Merck—Stannous—C.P.

Tin Protochloride or Di(Bi)chloride; Tin Salt.— $\text{SnCl}_2 + 2\text{H}_2\text{O} = 225.65$.—Colorl., cryst.; absorbs O fr. air & forms insol. oxychloride.—SOL.: v. dil. HCl; w. much W. forms insol. basic chloride.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.030%
Arsenic (As)	0.0002%
Alkali & Earths	0.15%
Iron (Fe)	0.003%

USES: Chem., as of the Reagent, above.—*Medic., intern.*, as teniafuge; in chorea & epilep., & as antidote in poison. by HgCl_2 .—*Extern.*, in ecz.—DOSE: 0.005–0.03 Gm. ($\frac{1}{12}$ – $\frac{1}{2}$ grn.) sev'l t.p.d.—ANTID. (For all tin salts): Emetics, NaHCO_3 , tannin (0.3 Gm. [5 grn.] every 15 min.), milk, egg albumin.—CAUT.: Keep well stoppered.

do. Merck—Stannous—Technical

USES: Reducer f. indigo & Fe & Mn oxides in dyeing; as mordant in dyeing w. cochineal; manuf. gold-purple & lakes; tinning by galvanic methods; reducer in manuf. dyes; remov. ink stains; bleaching sugar; yeast reviver; silvering glass; manuf. metalline which, mixed w. albumin, is printed on hangings & o. fabrics.

TIN CHLORIDE, COMMERCIAL—see Tin & Sodium Chloride

Tin Chromate—Stannic

$\text{Sn}(\text{CrO}_4)_2 = 350.70$.—Brownish-yellow, cryst. powd.—SOL.: W.—USES: Decorating porcelain & chinaware in rose to violet colors.

do. —Stannous

$\text{SnCrO}_4 = 234.70$.—Brown powd.; alm. insol. W.—USES: Decorating porcelain in red & lilac colors.

TIN DIBROMIDE—see Tin Bromide, Stannous

TIN DI(BI)CHLORIDE—see Tin Chloride, Stannous

TIN DIOXIDE—see Tin Oxide, Stannic

TIN DISULPHIDE—see Tin Bisulphide

Tin Fluoride—Stannous

$\text{SnF}_2 = 156.70$.—Wh., cryst. powd.—SOL.: W.

Tin Iodide—Stannic

Tin Tetraiodide.— $\text{SnI}_4 = 626.38$.—Red cryst.—SOL.: CS_2 , A., B., C., E.; incomp. W.

TIN MONOSULPHIDE—see Tin Sulphide

TIN MONOXIDE—see Tin Oxide, Stannous

TIN ORE—see Cassiterite

Tin Oxalate—Stannous

$\text{SnC}_2\text{O}_4 = 206.71$.—Heavy, wh. powd.—SOL.: Dil. HCl.—USES: *Techn.*, in dyeing & printing.

Tin Oxide Merck—Stannic—C.P.—White

Tin Peroxide, or Dioxide; Flowers of Tin; Stannic Anhydride.— $\text{SnO}_2 = 150.70$.—Wh. or alm. wh. powd.—SOL.: In fused alkali hydroxides & sulphides; insol. W. & acids.

MAXIMUM OF IMPURITIES

Substcs Sol. in HNO_3	0.300%
Chloride (Cl)	0.005%
Sulphate (SO_3)	0.020%
Free Alkali (as NaOH)	0.200%

do. Merck—Stannic—White

Wh. powd.—USES: Medicinally now obsolete, but formerly used as an anthelmintic & purg., & w. antimony oxide as a febrifuge.—*Techn.*, as polish f. finger nails; as catalyst in various syntheses.—DOSE: 0.3–0.6 Gm. (5–10 grn.).

do. —Stannic—Gray

Polishing Powder; Tin Stone; Tin Ash; Putty Powder; Cinis Jovis.—Grayish-wh., amorph. powd.—USES: *Techn.* f. polishing steel & glass; manuf. milk-colored, copper, ruby, and alabaster glass, enamel, & opaque glaze; mordant in printing & dyeing fabrics; manuf. pottery & porcelains; as polish f. finger nails.

do. —Stannous—Black

Tin Monoxide, or Protoxide.— $\text{SnO} = 134.70$.—Brownish-black, insol. powd.; burns to SnO_2 on heating in air.—USES: Powerful reducing agent.

TIN PEROXIDE—see Tin Oxide, Stannic

Tin Phosphide

Gray, hard mass; metallic luster.—USES: *Techn.*, in manuf. phosphor bronze, which is v. resistant to oxid'g act. of air & acid vapors.

TIN PROTOCHLORIDE—see Tin Chloride, Stannous

TIN PROTOSULPHIDE—see Tin Sulphide

TIN PROTOXIDE—see Tin Oxide, Stannous, Black

TIN PYRITES—see Stannite

TIN SALT—see Tin Chloride, Stannous

TIN STONE—see Cassiterite; Tin Oxide, Gray

Tin Sulphate Merck—Stannous

$\text{SnSO}_4 = 214.76$.—Heavy, wh. to yellowish cryst. powd.—**SOL.**: W., but the solut. soon bec. turbid. w. pptn of a basic sulphate.—**USES**: Dyeing.

Tin Sulphide Merck—Stannous—Cryst.

Tin Monosulphide, or Protosulphide.— $\text{SnS} = 150.76$.—Dark-gray, cryst. powd., insol. W.

Tin Tartrate—Stannous

$\text{SnC}_4\text{H}_4\text{O}_6 = 266.75$.—Wh. powd.—**SOL.**: v. dil. HCl.—**USES**: Dyeing & printing fabrics.

TIN TETRABROMIDE—see Tin Bromide, Stannic

TIN TETRACHLORIDE—see Tin Chloride, Stannic

TIN TETRAIODIDE—see Tin Iodide, Stannic

Tin & Sodium Chloride—White, Cryst.

Commercial Tin Chloride; Sodium Stannichloride; Tin Bichloride; Tin & Sodium Tetrachloride.— $\text{Na}_2\text{SnCl}_6 \cdot \text{H}_2\text{O} = 395.48$.—Wh., cryst. mass, or hard, brittle pieces.—**SOL.**: W.—**USES**: *Techn.*, as mordant in dyeing.

TIN & SODIUM TETRACHLORIDE—see Tin & Sodium Chloride

Tinical—Mineral

Natural Borax.—**OCCUR.**: Thibet; California; Borax Lake; Nevada.—**COMPOS.**: $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$.—**CRYST. SYST.**: Monosym.—**LUSTER**: Vitr. or resinous to dull.—**COLOR**: Wh.; somet. grayish, bluish, greenish.—**STREAK**: Wh.—**FRACT.**: Conch.; rather brittle.—**HARDN.**: 2–2.5.—**SP. GR.**: 1.69–1.72.—**USES**: Source of borax & boric acid.

TINCTURE FERRIC CHLORIDE, TASTELESS—see Tincture Iron Citrochloride

Tincture Iodine Merck—U.S.P. X

7% w/v I & 5% w/v KI.—Dark, reddish brown liq.—**USES**: *Extern.*, in enlarged & scrof. glands & cervix uteri, to hasten resorption of exudates, in inflam.; sore or abraded feet fr. long marches; disinf. wounds, & skin surfaces; preventing pitting in smallpox; infected wounds of scalp, leg ulcer, inguinal adenitis, vaginitis, & gonorrh. vaginitis applied by swab; as paint f. lupus vulgaris.—*Intern.*, as of Iodine.—**DOSE**: 0.06–0.3 cc. (1–5 M); aver. dose 0.1 cc. (1½ M).

Tincture Iron Citrochloride Merck—N.F. V

Tasteless Tincture Ferric Chloride.—35% by vol. solut. ferric chloride, 15% by vol. A., & 45% w/v sod. citrate.—**USES**: As chalybeate.—**DOSE**: Aver., 0.5 cc. (8 M).

Tincture Simulo Merck

Fr. seeds Capparis coriacea.—**ACTION**: Nerv.; Antiepil.—**USES**: Hyst., nervoun., & epilepsy.—**DOSE**: 2–8 cc. (30–120 M) 2–3 t.p.d.; in acute & subacute salpingo-oöphoritis, 3–4 cc. (45–60 M) p.d.

Tincture Strophanthus Merck—U.S.P. X

1:10, w. 90% A., fr. defatted (by benzin) seed of S. Kombé, Oliv.—Pale-yellow liq.; peculiar odor; bitter taste.—**ACTION**: Cardiac Tonic; Diur.—**USES**: Heart dis., asthma, dyspnea, dropsy, renal colic fr. calculi, palpitation of heart, nephritis, &c.—**DOSE**: 0.2–0.6 cc. (3–10 M); aver. dose 0.5 cc. (8 M).—**MAX. D.**: 0.6 cc. (10 M) single; 1.6 cc. (25 M) p.d.—**ANTID.**: Emetics, stom. siphon, cathartics, tannin, opium, coffee, brandy, &c.—**CAUT.**: Poison!

TINDER, GERMAN—see Agaric

Tinospora—B.P.C.

Gulancha.—Dried stem of *Tinospora cordifolia*, Miers, Menispermaceæ.—**HABIT.**: India.—**CONSTIT.**: Berberine; bitter glucosidal principle.—**USES**: As bitter tonic like calumba.—**DOSES**: Infus. (1:10) 2–4 cc. (30–60 M).—**Conc. Liq.** (1:2), 2–4 cc. (30–60 M).—**Tr.** (1:5), 2–4 cc. (30–60 M).

Titanium

Ti = 48.10; disc. in 1795 by Klaproth.—Dark-gray, slag-like mass, or powd.; v. hard; scratches agate & steel.—**SOL.**: Dil. acids.—**SP. GR.**: 4.87.—**MELT.**: 1800° C.—**USES**: As alloy (copper & iron) in titanium bronze, & as titanium green. The metal itself is not used. Medicinally, the bisulphate & salicylate have been stated to be powerful bactericides, & have been given in tuberculosis in doses of 4 cc. (1 fl. dr.) of a 0.25%–0.5% solut. 4 t.p.d.; the oxide is also employed extern. in ecz., scrofula, & lupus, as oint. or dust'g powd., inst. of zinc oxide.

Titanium Chloride—Titanic

Titanium Tetrachloride.— $\text{TiCl}_4 = 189.94$.—Colorl. liq.; absorbs moisture fr. air & evolves dense wh. fumes; decomp. by W.—**BOIL.**: 136° C.—**USES**: With potass. bitartrate as mordant in textile industry, & w. dye-woods in dyeing leather (the lactate, tartrate, & oxalate are similarly used); also as smoke-producing agent w. NH_3 ; manuf. iridescent glass & artif. pearls.

do. —Titanous

Titanium Dichloride.— $\text{TiCl}_2 = 119.02$.—Hygros., black powd.; burns like tinder when heated in air; decomp. W.—**CAUT.**: Keep protected fr. air.

TITANIUM DICHLORIDE—see Titanium Chloride, Titanous

TITANIUM DIOXIDE—see Acid Titanic Anhydride

TITANIUM HYDROXIDE—see Acid Titanic Hydrated

Titanium Nitrate

$5\text{TiO}_2 \cdot \text{N}_2\text{O}_5 \cdot 6\text{H}_2\text{O} = 616.61$.—Lustr. wh. cryst.—**SOL.**: Cold W.; decomp. by warm W.

TITANIUM OXIDE—see Acid Titanic Anhydride

Titanium Sulphate Merck

$\text{TiOSO}_4 = 160.16$.—Wh., or sltly yellowish powd.; decomp. by W.—USES: Dyeing; test f. Cu (Knecht).

TITANIUM TETRACHLORIDE—see Titanium Chloride, Titanic

Titanium Trichloride—15% Solution

$\text{TiCl}_3 = 154.48$ + aq.—Dark violet, aqu. liq.—USES: Volum. anal. as reducer; test f. azo-, nitro-, & nitroso-comp'ds, H_2O_2 , persulphates, indigo (Knecht); Cu & Fe $'''$ salts (Rhead); Au (Stähler).

Titanium & Ammonium Oxalate—Technical

$(\text{NH}_4)_2\text{TiO}(\text{C}_2\text{O}_4)_2 + \text{H}_2\text{O} = 294.22$.—Alm. wh., cryst. mass.—SOL.: v. eas. W.—USES: As mord. in dyeing, & in leather industry.

Titanium & Potassium Fluoride

$\text{TiK}_2\text{F}_6 = 240.30$.—Wh. leaflets.—SOL.: Diffic. in cold, more readily in hot, W.—USES: In manuf. pure titanio acid & titanium.

Titanium & Potassium Oxalate—Technical

$\text{TiO}:(\text{COO.COOK})_2 + 2\text{H}_2\text{O} = 354.35$.—Alm. wh., cryst. mass.—SOL.: v. eas. W.—USES: As mordant in dyeing & in leather industry.

Tobacco—B.P.C.

Lvs of *Nicotiana Tabacum*, L., Solanaceæ.—HABIT.: Central & South America; extensively cultiv. in warm temperate & tropical countries.—CONSTIT.: Nicotine (1%–7%–10%); nicotianin; nicotinine; nicotine; albumin; gum; resin; tannin; sugar; wax; nicotelline; nornicotine.—ACTION: Diur.; Sed.; Emet.; Nar.; Expect.; Antispasm.; Errhine; Antisep.; Sialagogue; Anodyne; Antiparasitic.—USES: *Intern.*, whoop-cough, & chron. asthma.—*Extern.*, in hemorrhoids, neural., tinea capitis, toothache, &c.; also by enema in hernia.—DOSE: 0.03–0.3 Gm. ($\frac{1}{2}$ –5 grn.).—Alcoh. extr., 0.006–0.06 Gm. ($\frac{1}{10}$ –1 grn.).—Fl'dextr., 0.03–0.3 cc. ($\frac{1}{2}$ –5 M).—ANTID.: Tannin, emetics, strychnine (physiol. antid.); alcohol, ammonia, digitalis, belladonna, brandy, &c.

TOBACCO WOOD—see Hamamelis

TOCOSINE—see Tyramine

Toddalia—B.P.C.

Dried root-bark of *Toddalia aculeata*, Pers., Rutaceæ.—HABIT.: India, Ceylon.—CONSTIT.: Yellow resin; bitter principle; vol. oil.—ACTION: Arom. Bitter.—DOSES: Infus. (1:10), 30–60 cc. (1–2 fl. oz.).—Conc. Liq. (1:2), 2–4 cc. (30–60 M).

Toison's Solution—For Blood Examination

0.025 Gm. methyl violet 5 B, 1 Gm. NaCl, 8 Gm. Na_2SO_4 , 30 cc. G., & 160 cc. W.

Tolidine

Orthotolidin; Orthodiaminoditoyl.— $(\text{C}_6\text{H}_3)_2(\text{CH}_3)_2(\text{NH}_2)_2 = 212.21$.—Fr. hydrazotoluene by HCl, or fr. azotoluene by SnCl_2 .—Wh. to

reddish cryst.—SOL.: A., E. diffic. W.—MELT.: 129° C.—USES: Manuf. dyes.

Tolidine Sulphate—Technical

Orthotolidine Sulphate.— $(\text{C}_6\text{H}_3)_2(\text{CH}_3)_2(\text{NH}_2)_2 \cdot \text{H}_2\text{SO}_4 = 310.29$.—Wh. to gray mass.—SOL.: Slty in W. & A.—USES: Manuf. various dyes.

Tolu—U.S.P. X; B.P.; Fr. Cod.

Thomas Balsam; Opobalsam; Balsam, or Resin, Tolu.—Fr. *Toluifera Balsamum*, L. (*Myroxylon toluiferum* H. B. K.), Leguminosæ.—HABIT.: South America (Venezuela, Colombia, Peru) on elevated plains & mountains.—Yellowish-brown or brown, semi-fluid or nearly solid resinous mass; arom. odor & taste; brittle when cold.—SOL.: Eas. A., C., E., fixed alkalies, & alm. insol. W. & petrol. E., U.S.P.; (1 A. [90%], 3 B., 0.5 C., 1 glac. acetic acid, B.P.C.).—CONSTIT.: Benzoic (abt 8%) & cinnamic (12%–15%) acids; cinnamein (7.5%); styracin; vanillin (0.05%); volat. oil (1.5%–3%); tolueresinotannol esters of benzoic & cinnamic acids.—ACTION: Expect.; Antisep.—USES: *Intern.*, tubercul., chron. bronch. catarrh, bronchiectasis, chron. inflam. of urogenital organs, coughs, incontinence of urine, catarrh of bladder, blenorrrhea, &c.—*Techn.*, in perfumery, chewing gum, & confectionery.—DOSE: 0.3–1 Gm. (5–15 grn.) 4–8 t.p.d.—Tr. (1:10), 1.3–2.6 cc. (20–40 M).

TOLUAZOTOLUIDINE—see Aminoazotoluene

Toluene Merck—C.P.

Toluol; Methylbenzene (or, -zol); Phenylmethane.— $\text{C}_6\text{H}_5\text{CH}_3 = 92.10$.—Fr. light coal-tar oil.—Colorl., refractive liq.; benzene-like odor. SOL.: A., C., E.; glacial acetic acid, acetone, CS_2 ; v. slty W.—SP. GR.: 0.870 at 15° C.—BOIL.: 110°–112° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Acid	0.000%
Readily Carbonizable Substcs..	Trace

USES: As solvent; test f. W. (Curtis).

do. Merck—Purified

DESCRIPT., SOL., &C: As of the preced'g.—USES: Topically in diphth. as Loeffler's Solut. (Toluene 18 cc., solut. FeCl_3 2 cc., menthol 5 Gm., & A. 30 cc.) applied ev. 3 hrs on a swab.—*Techn.*, in manuf. intermediates, benzoic acid, benzaldehyde, as also explosives, coal-tar dyes & artif. musk.

p-Toluene Sulphochloride

$\text{CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{Cl} = 190.61$.—Colorl. cryst.—SOL.: Eas. A., B., & in E. w. slt decomp.; insol. W.; also sol. without decomp. in a mixt. 7 parts conc. H_2SO_4 & 3 parts fum. HNO_3 , but on add. W. it separates unchanged on cooling.—MELT.: 69° C.—BOIL.: 145°–146° C. at 15 mm.

TOLUENE TRICHLORIDE—see Benzotrichloride

p-TOLUENESULPHONEDICHLORAMIDE—see Dichloramine

***o*-Toluic Nitrile**

Orthotoluic Nitrile.— $C_6H_4.CH_3.CN[1:2] = 117.10$.—Brown liq.—*SOL.*: A., B., E.—*BOIL.*: 203° – 204° C.—*MELT.*: -14° C.

***p*-Toluic Nitrile**

Paratoluic Nitrile.— $C_6H_4.CH_3.CH[1:4] = 117.10$.—Yellow, cryst. mass.—*SOL.*: A., B., E.—*MELT.*: 28° C.—*BOIL.*: Abt 215° C.

***m*-Toluidine**

Meta-aminotoluene (or, -ol).— $C_6H_4.CH_3.NH_2[1:3] = 107.12$.—Fr. *m*-nitrotoluene by HCl & Fe.—Reddish-brown liq.—*SOL.*: A., E.—*SP. GR.*: Abt 0.996 at 15° C.—*BOIL.*: 203° C.—*USES*: Manuf. dyes, intermediates.

***o*-Toluidine Merck—Technical**

Orthoaminotoluene (or, -ol).— $C_6H_4.CH_3.NH_2[1:2] = 107.12$.—Fr. nitrotoluene by HCl & Fe.—Light-yellow liq.; reddish-brown on expos. to air & light.—*SOL.*: A., E.—*SP. GR.*: 1.003 at 15° C.—*BOIL.*: 199° C.—*USES*: Test f. HNO_3 (Primot), Cl (Villiers-Fayolle); in colorimetric determ'n of Au.—*Techn.*, manuf. various dyes, intermediates; printing textiles blue-black, & making various colors fast to acids.

***p*-Toluidine Merck—Technical**

Para-aminotoluene (or, -ol).— $C_6H_4.CH_3.NH_2[1:4] = 107.12$.—Fr. nitrotoluene by HCl & Fe.—Wh., lustr. plates or leaflets.—*SOL.*: A., E.; v. sltly W.—*MELT.*: 45° C.—*BOIL.*: 198° C.—*USES*: Test f. lignin (Czapek), HNO_3 (Longi), phloroglucinol (Weselsky); also in organic synthesis.—*Techn.*, Manuf. dyes, intermediates.

***p*-Toluidine Bisulphate**

$C_7H_9N.H_2SO_4 = 205.19$.—Wh. to yellowish cryst.—*SOL.*: W., A.

Toluidine Blue

Zinc-chloride double salt of dimethyltoluthionine.— $C_{15}H_{16}N_3S.Cl.ZnCl = 406.58$.—Dark-green powd.—*SOL.*: A. w. blue-violet color.—*USES*: In ophthalmology like methylene blue in 0.1% solut. in purulent, infectious conjunctivitis; also like fluorescein to detect corneal defects (injured parts become blue).—*Techn.*, f. dyeing cotton.

***p*-Toluidine Hydrochloride**

$C_7H_9N.HCl = 143.58$.—Grayish-wh. cryst.—*SOL.*: W.; A.

TOLUOL—see Toluene

TOLUYLAZOTOLUYLAZOBETANAPHTHOL—see Biebrich Scarlet R, Medicinal

TOLUYLENE—see Stilbene

TOLUYLENE RED—see Neutral Red

***m*-Toluylenediamine**

Metatoluylenediamine; Alphadiaminotoluene (or, -ol).— $C_6H_3.CH_3(NH_2)_2[1:2:4] = 122.13$.—

Fr. dinitrotoluene by reduct.—Brown cryst.—*SOL.*: W., A., E.—*MELT.*: 99° C.—*USES*: Manuf. dyes, intermediates; also used in physiological researches.—*CAUT.*: Poison! Has destructive influence on red blood-corpuscles.

***o*-Toluylenediamine Hydrochloride**

Orthotoluylenediamine, or Betadiaminotoluene (or, -ol). Hydrochloride.— $C_7H_{10}N_2.HCl = 158.60$.—Brown powd.—*SOL.*: W.—*USES*: Manuf. dyes, intermediates.

***p*-Toluylenediamine**

$C_6H_3.CH_3(NH_2)_2[1:2:5] = 122.13$.—Colorl. cryst.—*SOL.*: Eas. W., A., E., hot B.—*MELT.*: 64° C.—*BOIL.*: Abt 274° C.—*USES*: Manuf. dyes.

o-TOLYLACETAMIDE—see Acet-*o*-toluide

p-TOLYLACETAMIDE—see Acet-*p*-toluide

TOLYPENTADECYLKETONE—see Pentadecyltolylketone

Tonco—B.P.C.

Tonka Bean; Coumarouna Bean; Snuff Bean.—Bean of *Dipteryx oppositifolia*, Aubl., D. odorata, Aubl., & o. sp. of D., *Casalpinia*æ.—*HABIT.*: Tropical America, Guiana, Angostura.—*CONSTIT.*: Coumarin (up to 3%); fixed oil (up to 25%).—*ACTION*: Cardiac Stim.; Nar.; Antispasm.—*USES*: Whoop-cough (obsolete).—*Techn.*, in perfum. & manuf. coumarin; tobacco flavoring; also in artificial "vanilla extracts."—*DOSE*: Fl'dextr., 0.3–2 cc. (5–30 M).

Tonga

Mixture of eq. parts of bark of *Premna arborea*, Farwell, & of the root of *Epipremnum pinnatum*, Engler, *Araceæ*.—*HABIT.*: Fiji Islands (?); Java; Sumatra; Paraguay; Australia.—*CONSTIT.*: Tongine (alkaloid); volat. oil.—*USES*: Analg. in neural.—*DOSE*: Aver., 2 Gm. (30 grn.).—Fl'dextr., 0.6–2 cc. (10–30 M).

TONKA BEAN—see Tonco

TOOTHACHE TREE—see Xanthoxylum

Topaz—Mineral

OCCUR.: Urals; Ilmen Mts; Brazil; U. S.—*COMPOS.*: $SiO_4Al[Al(F_2, O)]$.—*LUSTER*: High vitr. to adamantine.—*COLOR*: Wh., yellow, yellowish-brown, or light tints of blue, green, or pink.—*STREAK*: Wh.—*CLEAV.*: Basal, v. perfect to fair.—Brittle; transp. to transl.—*HARDN.*: 8.—*SP. GR.*: 3.4–3.6.—*USES*: Jewelry & ornaments.

TOPHOSAN = Acid Phenylcinchoninic; Cinchophen

TORMENTIL—see Tormentilla

Tormentilla—Fr. Cod.

Tormentil; Septfoil.—Rhizome of *Potentilla Tormentilla*, Necker, *Rosaceæ*.—*HABIT.*: Europe; northern Asia.—*CONSTIT.*: Tannin; tormentilla red; quinovic acid; ellagic acid; volat. oil.—*ACTION*: Astring.; Tonic.—*USES*: Diar. & dysent.—*Extern.*, in gargles & mouthwashes; also as astring. injection, & local appl. to ulcers.—*DOSES*: 2–4 Gm. (30–60 grn.).

Tourmaline—Mineral

OCCUR.: Ural; Elba; Switzerland; Saxony; Brazil; Norway; Cornwall; U. S.; Canada.—COMPOS.: Approx. $\text{Si}_4\text{O}_{20}\text{B}_2(\text{AlO})_2\text{Mg, Fe, Na}_2\text{Li}_2\text{H}_2)_9$.—CRYST. SYST.: Rhomboh. hemimorph.—LUSTER: Vitr. to resinous.—COLOR: Blk, brown, brownish-red, red, green, & rarely blue.—STREAK: Wh.—FRACT.: Uneven to opaque.—HARDN.: 7–7.5.—SP. GR.: 2.98–3.2.—USES: Selected pieces are employed f. optical purposes & f. ornaments.

Tragacanth—U.S.P. X; B. P.

Gum Tragacanth; Goat's Thorn; Hog Gum.—Dried gummy exudation fr. *Astragalus gummi-fer*, *Labillardiere*, or o. Asiatic spec. of *Astragalus*, *Leguminosae*.—HABIT.: Asia Minor; Syria; Persia.—Whitish, ribbon-shaped bands, horny consistency; transluc.; short fracture.—With 50 W. it swells up & forms a cloudy gelat. mass.—CONSTIT.: Bassorin; pectin; starch.—USES: Adhesive; size f. fabrics; in pharmacy as excipient f. pills, pastilles, &c., as emulsifier, & f. suspending heavy powders.

Traumaticin Merck

Abt 5% solut. of gutta-percha in C.—Thick, viscid, light-yellow liq.—USES: *Extern.*, in dentistry & surg. as a protective covering f. bleeding surf., cuts, &c. Also, as a vehicle f. appl. of chrysarobin or o. dermics, in skin dis.

TREE OF LIFE—see Thuja

Triacetin

$\text{C}_3\text{H}_5(\text{C}_2\text{H}_3\text{O}_2)_3 = 218.16$.—Fr. acetic anhydride & G.—Colorl. liq.—MISC.: A., B., C., E.; sltly W.; alm. insol. CS_2 or ligroin.—SP. GR.: 1.160.—BOIL.: 258°–259° C.—USES: As fixative in perfumery; in manuf. celluloid, photogr. films, & acetylcelluloses. Technical triacetin (a mixt. of mono-, di-, & sm. quant. triacetin) is used as a solvent of basic dyes, partic. indulines, & tannin, in dyeing.

TRIAMINODIPHENYLTOLYL CARBINOL—see Rosaniline

TRIAMMONIUM PHOSPHATE—see Ammonium Phosphate, Tribasic

TRIBENZYLIDENEDIAMINE—see Hydrobenzamide

TRIBROMACETALDEHYDE—see Bromal

TRIBROMALDEHYDE HYDRATE—see Bromal Hydrate

Tribromaniline

Symmetrical, or Ordinary, Tribromaniline; Aniline Tribromide.— $\text{C}_6\text{H}_2\text{NH}_2\text{Br}_3[1:2:4:6] = 329.83$.—Fr. aniline in acetic acid by Br.—Colorl. need.—SOL.: Hot A., C., E.; sltly cold A.; insol. W.—MELT.: 118°–119° C.—USES: As hydrobromide ("bromamide") in neuralgia.—DOSE: 0.6 Gm. (10 grn.).

TRIBROMANILINE HYDROBROMIDE—see Bromamide

TRIBROMBENZENE—see Benzene Tribromide

TRIBROMBUTYLALCOHOL, TERTIARY—see Brometone

TRIBROMHYDRIN—see Allyl Tribromide

TRIBROMOMETHANE—see Bromoform

Tribromphenol Merck

Bromol.— $\text{C}_6\text{H}_2(\text{OH})\text{Br}_3[1:2:4:6] = 330.81$.—Fr. phenol by Br.—Sol. to reddish, long cryst., or cryst. powd.—SOL.: Eas. A., C., E., G., oils; insol. W.—MELT.: 93° C.—ACTION: Extern. & Intern. Antisep.—USES: *Intern.*, diarrh., cholera infant., typhoid fever, &c.—*Extern.*, purul. wounds, gangrenous processes, diphth., &c.—DOSES: 0.1–0.5 Gm. ($1\frac{1}{2}$ –8 grn.) p.d.; children, 0.005–0.015 Gm. ($\frac{1}{12}$ – $\frac{1}{4}$ grn.).—APPL.: Wounds, &c., in 1:30 oily solut., or 1:10 oint.; in diphth., a 4% solut. in G., or 1:10–30 dust. powd. (talcum).—VETER. MED., *intern.*, in infectious intest. catarrh in dogs, 0.2–0.5 Gm. (3–8 grn.); *extern.*, inst. of iodoform.—CAUT.: Keep in the dark.

TRIBROMPHENOL-BISMUTH—see Bismuth Tribromphenate

TRIBROMPROPANE }
TRIBROMPROPYLENE } see Allyl Tribromide

Tribromsalol

Cordol.— $\text{C}_6\text{H}_2\text{Br}_3[2:4:6].\text{OCOC}_6\text{H}_4\text{OH} = 450.88$.—Cryst. powd.—SOL.: Diffic. A., E.; insol. W.—MELT.: 133° C.—ACTION: Intest. Antisep.; easily decomp. into tribromphenol & salicylic acid.—DOSE: 0.3–1.6 Gm. (5–25 grn.); up to 6 Gm. (90 grn.) p.d.

TRIBUTYRIN }
TRIBUTYRYL, GLYCERIN } see Butyrin

TRICALCIUM ORTHOPHOSPHATE—see Calcium Phosphate, Tribasic

TRICARBIMIDE—see Acid Cyanuric

TRICHLORACETALDEHYDE—see Chloral, Anhydrous

TRICHLORALDEHYDE HYDRATE—see Chloral Hydrate

TRICHLORALDEHYDE-OXYPHENYLDIMETHYLPYRAZOL—see Hypnal

Trichlorbenzene

Asymmetrical Trichlorobenzene (or, -zol).— $\text{C}_6\text{H}_3\text{Cl}_3[1:2:4] = 181.43$.—Fr. benzene & I by Cl.—Transp., colorl., rhombic cryst.—MELT.: 16° C.—BOIL.: 213° C.—SP. GR.: 1.574.

TRICHLORBUTYLALCOHOL, TERTIARY—see Chlorbutanol

α , α , β -TRICHLORBUTYRALDEHYDE—see Butylchloral

Trichlorethane

Monochlorethylene Chloride; Monochlorinated Dutch Liquid; Vinyl Trichloride; α - α - β -Ethane Trichloride.— $\text{CH}_2\text{Cl.CHCl}_2 = 133.41$.—Fr. $\text{C}_2\text{H}_5\text{Cl}$ & Cl, or fr. ethylene chloride & PCl_5 .—Colorl. liq.; pleas. odor.—SOL.: A., E.—SP. GR.: 1.458 at 9° C.—BOIL.: 114° C.—ACTION: Anesth.; said to be superior to chlorof. & ethylene chloride.

TRICHLORETHANOLMETHANE } see Volantal
TRICHLORETHYL CARBAMINATE }

Trichlorethylene—B.P.C.

Chlorylene; Westrosol.— $\text{CHCl}_2:\text{CCl}_2 = 131.40$.—Fr. tetrachlorethane by NH_4OH .—Colorl. liq.—SOL.: A., E., oils; insol. W.—SP. GR.: Abt 1.47 at 15° C.—BOIL.: Abt 87° C.—ACTION: Antineuralgic; stated to be 13 times more active than chloroform, while much less toxic.—USES: By inhalation in trigeminal neuralg. (has also been used intern. & subcut.); also to lessen sensitiveness of the cornea, & in inflammatory corneal diseases.—*Techn.*, as noninflamm. solvent of fats, resins, oils, rubber, instead of benzine; in detersive compounds; removing S fr. illuminating gas; manuf. dyes (e.g., indigo).—DOSE: By inhalation, 25–30 drops on cotton, at intervals of abt 10 min., at first daily, then 2–3 t. p. week.

TRICHLORETHYLIDENEGLYCOL—see Chloral Hydrate

TRICHLORETHYLIDENEIMIDE—see Chloralimide

TRICHLORISOPROPYLALCOHOL—see Isopral

Trichlorlactamide

$\text{CCl}_3\text{CH}(\text{OH})\text{CO.NH}_2 = 192.44$.—Fr. ethyl lactate or lactic anhydride by NH_3 .—Wh. to sltly yellowish cryst. powd.—SOL.: Diffic. W.; eas. A., E.—MELT.: 95°–96° C.

TRICHLORLACTONITRILE—see Chloral Hydrocyanate

TRICHLORMETHANE—see Chloroform

TRICHLORNITROMETHANE—see Chloropicrin

TRICHLOROBENZENE (or, -ZOL)—see Trichlorobenzene

Trichlorphenol—Cryst.

Omal.— $\text{C}_6\text{H}_2(\text{OH})\text{Cl}_3[1:2:4:6] = 197.43$.—Fr. phenol by Cl_2 .—Wh. cryst.—SOL.: v. eas. A., E.—MELT.: 65° C.—BOIL.: 239°–241° C.—ACTION: Antisept. (25 times stronger than phenol); Germic.—USES: Extern. in diphtheritic ulc., erysip., purulent & gangrenous wounds, cancerous ulcers, caries, chancre, &c., in 5%–10% oint. or solut.

Trichlorphloroglucinol

2.4.6 Trichlor-1.3.5 trioxybenzene.— $\text{C}_6\text{Cl}_3(\text{OH})_3 + 3\text{H}_2\text{O} = 283.48$.—Fr. phloroglucinol in CHCl_3 (or CCl_4 or glac. acetic acid) by Cl_2 .—Wh. to yellowish, cryst. powd.—SOL.: A., hot W.—MELT.: 134° C. when anhydrous.

Trichlorquinone

$\text{C}_6\text{HCl}_3\text{O}_2 = 211.42$.—Fr. phenol in H_2SO_4 by KClO_3 & HCl .—Yellow Leaflets.—SOL.: E., hot A.—MELT.: 165° C.

TRICHLORTERTIARYBUTYLALCOHOL—see Chlorbutanol

TRICHLORTRIOXYBENZENE—see Trichlorphloroglucinol

TRICHLORURETHANE—see Volantal

TRICRESOL—see Trikresol

TRIELAIDIN—see Elaidin

Triethanolamine—Technical

A mixt. of chiefly (70%–75%) triethanolamine ($\text{N}[\text{CH}_2\text{CH}_2\text{OH}]_3$) & 20%–25% diethanolamine w. up to 5% monoethanolamine.—Obt. by action of NH_3 on ethylene oxide.—Oily, alm. colorl., strongly basic, v. hygrosc. liq.; ammon. odor.—SOL.: Eas. W., A., C.; diffic. B., E.—BOIL.: Abt 277° C. at 150 mm.—SP. GR.: Abt 1.12.—USES: As solvent of fatty acids (e.g., oleic, stearic) to form W.-sol. soaps which are used to make W.-sol. emulsions w. oils; manuf. synthetic resins; increasing penetration of organic liquids into cellular material (wood, fiber).

TRIETHYL CITRATE—see Ethyl Citrate

TRIETHYL FORMATE—see Ethyl Orthoformate

Triethyl Phosphine

$(\text{C}_2\text{H}_5)_3\text{P} = 118.19$.—Fr. zinc ethyl by PCl_3 .—Colorl. liq.—MISC.: A., E.—SP. GR.: 0.812 at 15° C.—BOIL.: 128° C.—USES: Determine CS_2 in illuminating gas; also as test f. CCl_4 (Radcliffe).

Triethylamine

$(\text{C}_2\text{H}_5)_3\text{N} = 101.16$.—Fr. $\text{C}_2\text{H}_5\text{I}(\text{C}_2\text{H}_5\text{NO}_3)$ by NH_3 .—Colorl. liq.; strong odor of amm.—SOL.: Sltly in W.—SP. GR.: 0.733 at 15° C.—BOIL.: 90° C.

Triethylamine Hydrochloride

$(\text{C}_2\text{H}_5)_3\text{N.HCl} = 137.63$.—Colorl. cryst.; subl. without decomp.—SOL.: Eas. W.—MELT.: 248°–250° C.

TRIETHYLOSANILINE HYDROCHLORIDE—see Hofmann's Violet

Triferrin

Iron Paranucleinate.—Tastel., orange-yellow powd.; 2.5% P, 22% Fe.—SOL.: Eas. 2% solut. Na_2CO_3 ; insol. dil. HCl or W.—ACTION: Hematinic.—USES: Chlorosis, anemia, debility, scrofula, neurasth., rachitis.—DOSE: 0.3 Gm. (5 grn.) 3 t.p.d.—Mktd also in tablets of 0.3 Gm. (5 grn.) ea.

TRIFERRIN, LIQUOR—see Triferrol

Triferrol

Liquor Triferrein.—An elixir, ea. 4 cc. (1 fl. dr.) of which cont. 0.06 Gm. (1 grn.) triferrin.—USES: As of triferrin.—DOSE: 15 cc. (4 fl. dr.).

Trifolium—N.F.V

Meadow Clover; Purple Clover; Cow Clover; Red Clover.—Dried inflorescence of *Trifolium pratense*, L., Papilionaceæ.—HABIT.: Europe; Asia; Northern Africa; natur. in U. S.—CONSTIT.: Tannin; two resins; fat; chlorophyll.—ACTION: Alter.; Sed.—USES: Domestic cough remedy.—DOSE: Aver., 4 Gm. (1 dr.).

TRIFORMOL—see Paraformaldehyde

Trigemin

Dimethylaminoantipyrine-butylchloralhydrate.
— $C_{17}H_{24}N_3O_3Cl_3$ = 424.68.—Wh., sltly hygrosc. powd.—SOL.: In abt 65 W.; 2 A., B., 10 E.; diffic. ligroin.—MELT.: 83° – 85° C.—ACTION: Analgesic; Sedative.—USES: Migraine, neuralgia, headache, caries, influenza, & angina.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

TRIHIDROXYBENZENE—see Pyrogallol

TRIIMIDE—see Paramide

TRIIDOMETHANE—see Iodoform

TRIIDO-OXYINDOL- β -PROPIONIC ACID—see Thyroxin

TRIKETOHYDRINDENEHYDRATE—see Ninhydrin

Trikresol

Tricresol.—Mixt. of approx. 35 ortho-, 40 meta-, & 25 para-, cresols.—Colorl., oily liq.—SOL.: Abt 40 W.—SP. GR.: 1.045 at 15° C.—ACTION: Antisep.; Germic.—USES: *Extern.*, 1% solut. or oint. in skin dis., surg. dress., &c. Neither attacks instruments nor benumbs the hands.

TRIKRESOLAMINE—see Kresamine

Trillin (Eclectic)

Alcoh. extr. of Trillium erectum, L.—Dark-brown powd.—ACTION: Astring.; Tonic; Expecto-
r.—USES: Hasten parturition, check hemorrhage, &c.—DOSE: 0.12–0.25 Gm. (2–4 grn.).

Trillium—N.F. V

Beth Root; Birthroot; Indian Balm; Ground Lily.—Dried rhizome of Trillium erectum, L., & o. spec. of T., Liliaceæ.—HABIT.: Canada, south to Tennessee & Missouri; also Japan.—CONSTR.: Trilline; fixed oil; tannin; starch.—ACTION: Alter.; Expect.; Astring.—USES: *Intern.*, in asthma.—*Extern.*, indol. ulcers & injuries.—DOSE: Aver., 2 Gm. (30 grn.).—Fl'dextr., 4–8 cc. (1–2 fl. dr.).

Trimethylamine—Anhydrous

Its aqueous solut. is often miscalled "Propylamine."— $(CH_3)_3N$ = 59.10.—Fr. CH_3I by NH_3 .—Colorl., liquefiable gas at ordin. temp. & press.; mkt'd compressed in form of a colorl. liq. in tubes; fishy, ammon. odor.—SOL.: W., A.—SP. GR.: 0.662 at -5° C.—BOIL.: 3° – 4° C.

do. —33% Solution

33% aqu. solut. $(CH_3)_3N$.—Colorl. liq.; strong ammon. odor; when dil., odor is v. disagreeable & persistent, & resembles that of decomp. fish.—MISC.: A., W.—USES: Literature on trimethylamine leaves one in doubt as to whether the dilute or the pure prep. is intended, hence the dosage is not absol. reliable. Given *intern.*, in musc. rheum., rheumatic metastases, rheumatic paralysis, & partic. in acute & chron. rheum.; also recom. in acute pneum.—*Extern.* in rheum., cauterizing aphthæ, & diluted in vaginitis & blenorragia, as well as in thrush & similar affect.—DOSE: 0.1–0.3 cc. ($1\frac{1}{2}$ –5 M) sev'l t.p.d. in rheum.; 1–3 cc. (15–45 M) p.d. in aqu. solut. in pneumon.

do. —10% Solution

So-called "Propylamine."—10% aqu. solut. $(CH_3)_3N$.—Colorl. liq.; strong fishy & amm. odor.—MISC.: W.—SP. GR.: 0.975.—ACTION: Caustic; Antisep.; Antirheum.—USES: Rheum., chorea, pneum.—DOSE: 0.3–1.3 cc. (5–20 M) sev'l t.p.d. in rheum.; in chorea & in pneum., 20–50 cc. (5–12 fl. dr.) p.d.

Trimethylamine Hydrochloride—B.P.C.

$(CH_3)_3N.HCl$ = 95.56.—Colorl., deliques., transluc. cryst.; slt fishy odor & saline pungent taste.—SOL.: Eas. W., A.—MELT.: 274° – 275° C.—ACTION: Antirheum.; Antipodagric.—USES: Rarely employed in rheum. & gout.; *techn.*, as odorous addition to bait.—DOSE: 0.06–0.3 Gm. (1–5 grn.).

TRIMETHYLBENZENE (or, -ZOL), ASSYMETRICAL—see *pseudo*-Cumene, Techn.

TRIMETHYLBENZENE (or, -ZOL), SYMMETRIC—see Mesitylene

TRIMETHYLBENZOXYPYPERIDINE HYDROCHLORIDE—see Eucaine Hydrochloride

TRIMETHYLCARBINOL—see Alcohol Butylic, Tertiary

TRIMETHYLDIOXY-OXYETHYLPURIN—see Ethoxycaffeine

Trimethylene Bromide

Normal Propylene Bromide; Propylene Dibromide; 1,3-Dibromopropane.— $CH_2Br.CH_2.CH_2Br$ = 201.90.—Fr. allyl bromide by HBr gas.—Colorl. liq.—SOL.: Eas. A., C., E.—SP. GR.: 1.980 at 15° C.—BOIL.: 165° C.

Trimethylene Chlorobromide

3.Chlor-1.bromopropane.— $CH_3.CHCl.CH_2Br$ = 157.44.—Fr. trimethylene bromide & $HgCl_2$.—Colorl. liq.—SOL.: A., E.—SP. GR.: 1.605 at 15° C.—BOIL.: 140° – 142° C. at 746 mm.

TRIMETHYLETHYLENE—see Amylene

TRIMETHYLETHYLENEHYDRATEAMMONIUMHYDROXIDE—see Choline

TRIMETHYLGLYCINE HYDROCHLORIDE—see Betaine Hydrochloride

Trimethylpyrogallol

Trimethylester of Pyrogallol.— $C_6H_3(OCH_3)_3$ [1:2:3] = 168.14.—Fr. pyrogallol, CH_3I , & KOH.—Wh. need.—SOL.: A., E.—MELT.: 47° C.—BOIL.: 235° C.

TRIMETHYLBXANTHINE—see Caffeine

TRIMYRISTIN—see Myristin

TRINITRIN, or TRINITROGLYCERIN—see Spirit Glyceryl Trinitrate

Trinitrocresol

Trinitrometacresol.— $C_6H_3.CH_3.OH.(NO_2)_3$ [1:2:3:4:5] = 243.10.—Fr. nitrotoluidine in HNO_3 by $NaNO_2$.—Yellow needles.—SOL.: Eas. A., B., E.; sltly W.—MELT.: 109.5° C.; explodes when heated to 150° C.—ACTION: Antiseptic.

TRINITROMETACRESOL—see Trinitrocresol

Trinitronaphthalene

$C_{10}H_5(NO_2)_3[1:3:5] = 263.11$.—Yellow powd.—**SOL.**: A.; sltly C., E.—**MELT.**: $122^\circ C$.—**USES**: Manuf. dyes.

Trinitrophenol Merck—C.P.—With abt 10% Water Added

Acid Picric; Picronitric, Picrinic, Carbazotic, Nitroxanthic, or Nitrophenic, Acid.— $C_6H_2-OH.(NO_2)_3[1:2:4:6] = 229.08$.—Fr. phenol by HNO_3 .—Pale-yellow, lustr., odorl., intens. bitter cryst.; explode when rapid, heated, & by percussion.—**SOL.**: Abt 100 W., abt 15 A., abt 20 B.—**MELT.**: $121^\circ-123^\circ C$.—**NOTE**: Usually 10% to 20% water is added to make the trinitrophenol safe for transportation.

MAXIMUM OF IMPURITIES

Substcs Insol. in Water.....	0.000%
Sulphuric Acid, free & Combined (SO_3).....	0.075%
Alkali Picrates.....	0.10%
Resins.....	None

USES: General alkaloidal reagent (partic. f. determ'g cinchona alkaloids volumetrically); as standard in acidimetry and iodimetry; in microscopy; also as reagent f. spermatic fluid (Barberio; Bokarius), water (Bougault), HCN (Braun; Chapman; Guignard; Hlasiwetz; Lea; Waller), glucose (Braun; Johnson), albumin (Braunard; Esbach; Galippe; Hager; Johnson), guanine (Capranika), volat. oils (Dragendorff), gallic acid (Dudley), alkaloids (Flückiger), diff. benzin fr. benzene (Gawalowski), $(NH_4)_2S$ (Gazzetti), cresol (Goedike), atropine (Hager), creatinine (Jaffe; Mayerhofer), creatin (Kossel), tryptophan (Mayeda), guanidine (Prelinger), phenylalanin (Mayeda), gastric carcinoma (Salomon), & mineral acids (Schulz).

do. Merck—U.S.P. X—With abt 20% Water Added

DESCRIPT.: as preced'g.—**SOL.**: 78 W., 12 A., 10 B., 35 C., & 65 E., at $25^\circ C$.; & 15 boil. W., U.S.P.—**MELT.**: $121^\circ-123^\circ C$.; sublimes when cautiously heated.—**ACTION**: Antisep.; Oxidiz.—**USES**: Rheum., neuralg., malaria, trichinosis, &c.—**Extern.**, 2% to 6% hydroalcoh. solut. in hemorrhage; in 0.5%–1% solut. in burns; burns of eye caused by chemicals, partic. lime, in 2% oint.; wounds & ulcers; chilbl., gynecol., eye, ear & vener. dis., & in 1–2:300 solut. in eczema, erysip., herpes, intertrigo & o. skin dis.; ciliary blepharitis; 1% sol. (2 acid, 15 A., 185 W.) & 2% oint. in smallpox; abt 1% solut. by intra-uterine inj. in blennorrhagic endometritis; in tuberc. by inhal'g vapors of hot 6% solut.; 5% solut. in A. in sweat'g feet; as surgical antisept. in 1.2% solut.; also in acute gonorrh. in 2–5:1000 solut. by inj.—**Techn.**, dyeing, explosives, matches, & in leather industry; test for albumin & peptone; microscopy.—**DOSE**: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.), in alcoh. solut.—**MAX. D.**; 0.3 Gm. (5 grn.) single; 1 Gm. (15 grn.) p.d.—**ANTID.**: Albumin; hypodermoclysis; transfusion of alkali. NaCl solut.; Na_2SO_4 .—**INCOMP.**: All oxidizable substcs; gelatin, albumin, alkaloids.—**CAUT.**: Dangerously explosive w. S, P,

&c. Poisonous!—**NOTE**: Stains on hands or linen are removed by rubbing w. an aqu. paste of lithium carbonate.

TRINITROSEUDOBUTYL-*m*-XYLENE—see Musk, Artificial

TRINITROTERTIARYBUTYLTOLUENE—see Musk, Artificial

Triolein

Olein; Normal Oleic Acid Glyceride.— $C_3H_5(OC_{18}H_{33}O)_3 = 885.12$.—Chief constit. of fatty, non-drying oils & solid fats.—Colorl. to yellowish, oily liq.—**SOL.**: C., E., absol. A.—Solidif. at abt $-6^\circ C$.

TRIONAL—see Sulphonethylmethane

TRIOXYACETOPHENONE—see Gallacetophenone

TRIOXYANTHRACENE—see Anthrarobin

TRIOXYANTHRAQUINONE—see Anthragallol; Purpurine

TRIOXYBENZENE (or -ZOL)—see Phloroglucinol

TRIOXYBENZENE, VICINAL—see Pyrogallol

TRIOXYBENZOPHENONE—see Salicylresorcinolketone

TRIOXY-*n*-BUTYLETHYLPYRIMIDINE—see Neonal

TRIOXYCINNAMIC ANHYDRIDE—see Daphnetin

TRIOXYMETHYLANTHRAQUINONE—see Emodin

TRIOXYMETHYLENE—see Paraformaldehyde

TRIOXYPURIN—see Acid Uric

Tripalmitin

Palmitin; Normal Palmitic Acid Glycerin Ester.— $C_3H_5(OC_{16}H_{31}O)_3 = 807.04$.—Constit. of most fats.—Wh., cryst. powd.—**SOL.**: C., E.; hot A.—**MELT.**: Abt $58^\circ C$.

Triphal

Sodium Aurothiobenzimidazolcarboxylate.— $C_6H_3N.NH.CSAu.COONa + 2H_2O = 448.35$.—Light-yellow powd.; abt 44% Au.—**SOL.**: Eas. W., hot G.; insol. A., E.—**ACTION**: Antitubercular.—**DOSE**: 0.025–0.05–0.1 Gm. ($\frac{3}{8}$ – $\frac{3}{4}$ –1½ grn.) by intraven. inj.

TRIPHANE—see Spodumene

Triphenyl Phosphate

$(C_6H_5)_3PO_4 = 326.25$.—Fr. phenol & $POCl_3$.—Colorl., odorl., unflammable needles.—**SOL.**: A., B., C., E., acetone, conc. H_2SO_4 ; insol. W.—**MELT.**: $49^\circ C$.—**BOIL.**: $245^\circ C$. at 11 mm.—**USES**: Incombustible substitute f. camphor in celluloid; rendering acetylcellulose, cellulose formate, nitrocellulose, airplane "dope," etc., stable & fireproof; impregnating roofing paper; as lubricant (when rendered more eas. fusible by add'n of cresyl phosphate).

 α -Triphenylguanidine

Alphatriphenylguanidine.— $C_6H_5.N:C(NH.C_6H_5)_2 = 287.26$.—Fr. aniline & thiocarbonyl in A. by PbO & heat.—Wh. powd. or cryst.—**SOL.**: A., C., E.; v. sltly W.—**MELT.**: $143^\circ C$.—**ACTION**: Antiseptic.

α -Triphenylguanidine Hydrochloride

$C_{19}H_{17}N_3 \cdot HCl + H_2O = 341.74$.—Wh., cryst. powd.—SOL.: A., W.—MELT.: 241° – 242° C.

Triphenylmethane

$HC(C_6H_5)_3 = 244.22$.—Fr. benzene in $CHCl_3$ by $AlCl_3$ & heat.—Colorl. cryst.—SOL.: B., C., E.; hot A.—MELT.: 92° C.—BOIL.: 360° C.—USES: Manuf. a large number of dyes.

TRIPOTASSIUM PHOSPHATE—see Potassium Phosphate, Tribasic

TRISODIUM PHOSPHATE—see Sodium Phosphate, Tribasic

Tristearin

Glyceryl Tristearate; Stearin.— $C_{3}H_5(C_{18}H_{35}O_2)_3 = 891.17$.—Chief constit. of the more solid animal & vegetable fats.—Wh. powd.—SOL.: E., boil. absol. A.—MELT.: At 55° C.; on further heat. solidifies, & melts again at 72° C. (apparently 2 modifications).—USES: Technical.

Triticum—N.F. V; B.P.C.; Fr. Cod.

Agropyrum (B.P.C.); Couch Grass; Dog Grass; Graminis; Quick Grass.—Dried rhizome & roots of *Agropyron repens* (L.), Beauvois, Gramineae, gathered in Spring.—HABIT.: Europe; Northern Asia; natur. in U. S.—CONSTIT.: Triticin; glucose; mannite; inosite.—ACTION: Aper.; Diur. Lessens irritation in dis. of urinary organs.—USES: Cystitis & o. dis. of genito-urin. organs.—DOSES: 2–12 Gm. (30–180 grn.); aver. dose, 10 Gm. ($2\frac{1}{2}$ dr.).—Fl'dextr., 4–12 cc. (1–3 fl. dr.).

Tritropine

$C_{42}H_{54}N_2O_7 = 698.66$.—Alkaloid fr. opium.—Wh. powd.—SOL.: A.; eas. C. & alkalies.—MELT.: 182° C.—ACTION: Tetanic poison, like strychnine.

TROMMSDORFF'S SOLUTION—see Zinc Iodide-Starch Solution

TRONA—see Sodium Carbonate, Technical

Tropacocaine Hydrochloride Merck

Benzoylpseudotropine Hydrochloride Merck.— $C_8H_{14}NO \cdot C_6H_5 \cdot CO \cdot HCl = 281.70$.—Fr. narrow-lvd var. of *Erythroxylon Coca*, Lam., grown in Java; also synthet.—Colorl. cryst.—SOL.: W.—MELT.: 271° C.—ACTION: Local Anesth.; Succedaneum for cocaine. Reported not half as toxic as cocaine; anesthesia fr. it sets in more rapidly & lasts longer than w. cocaine; causes much less hyperemia than does cocaine; mydriasis does not always occur, & when it does, is much less than w. cocaine; the solut. is easily sterilizable, & its activity is retained f. 2 or 3 months; may replace cocaine in ev. case as an anesthetic.—USES: 3%–10% solut., in 0.8% NaCl solut. in ophthalm., dentistry, in general surgery by the Schleich infiltration method, in regional anesthesia accord. to Oberst, & in lumbar anesth. accord. to Bier's method. In lumbar anesth., 0.04–0.07 Gm. ($\frac{2}{3}$ – $1\frac{1}{2}$ grn.) diss. in cerebrospinal fluid. In

infiltrat. anesthesia 0.05–0.1 Gm. ($\frac{3}{4}$ – $1\frac{1}{2}$ grn.) w. 0.1 Gm. ($1\frac{1}{2}$ grn.) NaCl in 50 cc. ($12\frac{1}{2}$ fl. dr.) W. In eye drops, 0.5 Gm. (8 grn.) w. 0.1 Gm. ($1\frac{1}{2}$ grn.) NaCl in 10 cc. (150 M) W. In operations on eye, by instil. or subcut. or subconjunct. inj., 0.3 Gm. (5 grn.) w. 0.06 Gm. (1 grn.) NaCl in 10 cc. (150 M) W. For subcut. inj. & in dentistry 0.3 Gm. (5 grn.) w. 0.2 Gm. (3 grn.) NaCl in 50 cc. ($12\frac{1}{2}$ fl. dr.) W. In tooth extraction, 0.5 Gm. (8 grn.) w. 0.06 Gm. (1 grn.) NaCl in 10 cc. (150 M) W., of which 1 cc. (15 M) is injected in adults, & 0.5 cc. (8 M) in childr. of 12–15 yrs.

TROPAEOLINE D—see Methyl Orange

TROPAEOLINE D PAPER—see Methyl Orange Paper

TROPAEOLINE O—see Yellow T

Tropaeoline OO

Diphenylamine Orange; Orange GS; Orange N; Orange IV; New Yellow; Fast Yellow; Acid Yellow D.—Sod. salt of parasulphobenzeneazodiphenylamine.— $SO_3Na \cdot C_6H_4 \cdot N:N \cdot C_6H_4 \cdot NH \cdot C_6H_5 = 375.29$.—Orange-yellow scales, or yellow powd.—SOL.: W.—USES: Techn., dyeing wool orange-yellow fr. acid bath; also in solut. of 0.05 Gm. in 100 cc. 50% A. as indic. in chem. analysis (acids = red; alkalies = yellow; PH = 1.3–3.2). Not very sensitive; not affected by CO_2 .

Tropaeoline OOO No. 1

Alphanaphthol Orange; Orange I; Sodium Azobenzenealphanaphtholsulphanilate.— $C_{16}H_{11}N_2O_4SNa = 350.24$.—Reddish-brown powd.—SOL.: W.—USES: As indic. in volum. anal. (acids = yellow; alkalies = red); when "certified," also as color f. food products.

Tropaeoline OOO No. 2

Betanaphthol Orange; Orange II; Mandarin; Orange Extra; Chrysaureine; Sodium Azobetanaphtholsulphanilate.— $C_{16}H_{11}N_2O_4SNa = 350.24$.—Yellowish-red powd.—SOL.: W.—USES: Dye, & coloring; not well adapted f. use as indic., as color change too slight.

Tropaeoline Paper

Wh. paper impregnated w. a satur. alcoh. solut. tropaeoline O O & dried.—USES: Detect. free HCl in gastric juice (lilac color).—PH = pink 1.4–2.6 yellow.

TROPAEOLIN R—see Yellow T

TROPICACIDTROPINE ESTER—see Hyoscyamine

Tropine

Methoxyethylpyridinetetrahydride.— $C_8H_{15}NO = 141.17$.—Cleavage product of atropine.—Hygrosc., wh. cryst.—SOL.: W., C., E.—MELT.: Abt 62° C.—BOIL.: 229° C.—USES: Synthesis of homatropine.

Tropine Sulphate

$(C_8H_{15}NO)_2 \cdot H_2SO_4 = 380.41$.—Wh. cryst.—SOL.: W., A.

Trygase

Beer yeast in powd. form.—Light-gray powd.; odor & taste of yeast.—Insol. W.—USES: Diab., furunculosis, acne, vaginitis, infect. dis., intest. affect.—DOSE: Teasp. sev'l t.p.d.

TRYPAFLAVINE—see Acriflavine

TRYPAFLAVINE, NEUTRAL—see Acriflavine, Neutral

Trypan Blue—For Injection

Sodium salt of tolidindisazo-bi-1.amido-8.naphthol-3.6.disulphonic acid. — $(C_6H_3[CH_3].N:N.C_{10}H_3[NH_2].[SO_3Na]_2).OH = 943.64$.—Bluish-gray powd.—SOL.: W. (deep blue color w. violet tinge); traces only sol. in A.; insol. C., E., petrol B.—USES: Hemoglobinuria in *cattle* & *horses*, & distemper in *dogs*.—DOSE: 100 cc. ($3\frac{1}{2}$ fl. oz.) of a 1% aqu. steril. solut. intraven. or subcut.; in distemper in *dogs*, 5–10 cc. (75–150 M) of 1% solut. subcut.

Trypan Red

Sodium salt of orthobenzidinemonosulphodiazobinaphthylaminesulphonic acid.— $C_{22}H_{19}O_{15}N_6S_5Na_5 = 1002.66$.—Reddish-brown powd.—SOL.: W.—USES: Trypanosomiasis, gastric cancer, & inflam. of lymph glands.—DOSE: *Subcut.*, 0.5 Gm. (8 grn.) diss. in 40 cc. (10 fl. dr.) W. May be also given in like dose *intern.*

Trypsamide

Sodium salt of *n*-Phenylglycineamide-*p*-arsonic acid (manufactured by Merck & Co., Inc., by license of The Rockefeller Institute for Medical Research).— $(NHCH_2CONH_2).C_6H_4.(AsO.OH.ONa) = 296.10$.—Colorl., odorl., cryst. powd.; 25.32% As.—SOL.: Eas. W. (solut. neutral); sltly sol. in A.; insol. E.—ACTION: Trypanocide; Spirocheticide.—USES: Trypanosomiasis; neurosyphilis (paresis).—DOSE: 3 Gm. (45 grn.) diss. in 10 cc. ($2\frac{1}{2}$ fl. dr.) W. intravenously at intervals of 1 week, f. a period of 8 weeks. Should not be used in cases of degenerative changes in the retina.

Trypsin Merck

Enzyme fr. pancreatic juice, or the pancreas, of animals.—Converts albuminates, at body temperature & in alkaline solut., successively into globulin-like substances, peptone, & finally tripeptone.—Yellow to grayish-yellow powd.—SOL.: W.; insol. A. or pure G., B.P.C.—ACTION: Proteolytic.—USES: Artif'y peptonize milk; & somet. w. o. ferments in duodenal dyspep. in diabetes. Acts in an alk. medium; should not be given w. pepsin, which it negatives.—DOSE: 0.5–1.6 Gm. (8–25 grn.) at, or after, meals, in keratin-coated pills.—APPL.: As solvent of false diphtheritic membrane in 10% solut. prepared by digesting trypsin 4 hours in 1:1000 solut. salicylic acid, & then making alkaline. More recently advocated f. use in cancer; also in purulent tuberculosis, 1–2 cc. (15–30 M) of a 1% solut. being inj. into infected spot.

Tryptophan

Proteinchromogen; Indolaminopropionic Acid; Indolalanin.— $C_6H_4(NH.CH):C.CH_2.CH(NH_2)-$

$COOH = 204.17$.—Constit. of most proteins, fr. which it is liberated by hydrolytic decomposition.—Colorl. cryst.—SOL.: Sltly cold, eas. hot, W.; sltly A.—MELT.: $252^\circ C$., but begins to become brown at $240^\circ C$.

Tuberculin Koch

Koch's Lymph.—Obt'd accord. to Koch by concent'g bouillon cultures of the tubercle bacillus to $\frac{1}{10}$ their vol. & filtering through a Chamberland filter to remove the bacilli, B.P.C.—Effects on animals having the tuberculous diathesis are v. marked, & therefore it enables the physician to discover these dis. at a v. early stage.—USES: Diagnostic f. tuberculosis in man & in domestic animals; on hypoderm. inj. of remedy, a rise of temperature occurs if tuberculosis is present.—DOSE: For *man*: 0.0003–0.001–0.003–0.01 cc. ($\frac{1}{200}$ – $\frac{1}{50}$ – $\frac{1}{20}$ – $\frac{1}{5}$ M) at intervals of 3–5 days. If no reaction follows w. 0.01 cc. ($\frac{1}{5}$ M) tuberculosis is not present.—For *cattle*: 0.5 cc. (8 M).—The therapeutic doses f. *man* are variously stated by different authorities.

Tuberculol

Tuberculous toxin free fr. secondary products, & obt'd accord. to Landmann's method. Cont's in conc. form the unchanged toxins of both the culture fluid & the bacteria cells, because obt'd without the aid of heat, hence eminently adapted f. immunizing against tuberculosis, & also f. therapeutic employment in tuberculous affections. This is the only tuberculin preparation which can be tested on healthy animals. The toxic unit is represented by the quantity (1 cc. [15 M]) required to kill a healthy guinea-pig weighing 250 Gm. (abt 8 oz.) within 4 days.—Used hypodermically.

TUBERCUPROSE—see Copper Formate, Cupric

TUBOCURARE—see Curare

TUBOCURARINE—see Curarine

TULIP-TREE—see Liriodendron

Tungsten

Wolfram; Scheelium.—W = 184.00; first isolated in 1783 by d'Elhujar.—Light gray, somet. darker, powd. or lumps; metal. luster; burns to WO_3 when heated in air.—SOL.: In fused KOH (tungstate formed); insol. alkali hydroxides; converted by HNO_3 & aq. regia into WO_3 ; attacked by fused peroxides, nitrates, & alkali carbonates.—SP. GR.: 19.1 at $15^\circ C$.—MELT.: Abt $3000^\circ C$.—USES: To increase hardness, toughness, elasticity & tensile strength of steel; manuf. alloys, tungsten steel, tungsten German silver, gun metal (tungsten manganese copper), tungsten white metal, etc.; also making the so-called tungsten lamps.

Tungsten Bronze—Orange

Tungsten-sodium Bronze; Saffron Bronze; Tungsten-sodium Tungstate.— $Na_2O.WO_2.xWO_3$ ($x = 1-7$).—Gold-like leaflets.—Insol. in usual solvents.—USES: Bronze pigment.

do. —Violet

Potassium Tritungstate.— $K_2O.WO_2.2WO_3$. + blue tungsten oxide.—USES: Bronze pigment.

Tungsten Colloidal

Black, tasteless, odorl. powd.—Proposed f. use inst. of Bi salt in Roentgen-ray therapy, as being at least as opaque, nontoxic, & causing no unpleasant by-effects.—DOSE: 25–80 Gm. (6–20 dr.).

Tungsten Oxychloride

WOCl_4 = 341.84.—Dark-red acic. cryst.—Decomp. by W.—MELT.: Abt 211°C .—BOIL.: Abt 227.5°C .—CAUT.: Keep in sealed glass containers as it is decomposed by moist air into tungstic acid & HCl.—USES: Incandescent lamps.

TUNGSTEN-SODIUM BRONZE } see Tungsten
TUNGSTEN-SODIUM TUNGSTATE } Bronze, Orange

TUNGSTEN TRIOXIDE—see (Acid) Tungstic Anhydride

“TUNGSTEN WHITE”—see Barium Tungstate

TURKEY CORN—see Corydalis

TURKEY GALLS—see Nutgall

TURLINGTON'S BALSAM—see Balsam, Traumatic

TURMERIC—see Curcuma

TURMERIC PAPER—see Curcuma Paper

TURMERIC ROOT—see Hydrastis

TURMERIC YELLOW—see Curcumin

TURNSOLE—see Litmus

TURPENTINE CAMPHOR—see Terpene Hydrochloride

TURPENTINE, CANADA—see Balsam, Canada

Turpentine, Chian

Chios Turpentine; Scio Turpentine; Cyprian Turpentine.—Oleoresin fr. *Pistacia Terebinthus*, L., *Anacardiaceae*.—HABIT.: Island of Chios or Scio; Western Asia; Mediterranean basin.—Yellowish, greenish, or bluish-green, translucent, viscid liq.; pecul. aromat. odor; less acrid taste than o. turpentines; grad. hardens by age.—CONSTIT.: Volat. oil; resin; bitter substce.—USES: Cancerous growths.—DOSE: 0.2–0.4 Gm. (3–7 grn.) sev'l t. daily; in oint. w. petrolatum (5:30).

TURPENTINE DIHYDROCHLORIDE—see Terpene Dihydrochloride

Turpentine, French

Bordeaux Turpentine; Galipot.—Oleo-resin fr. *Pinus Pinaster*, Solander, *Coniferae*.—HABIT.: Southern France.—CONSTIT.: Volat. oil; resin.—USES: In ointments & plasters as rubefacient.

TURPENTINE, LARCH—see Turpentine, Venice

TURPENTINE MONOHYDROCHLORIDE—see Terpene Hydrochloride

Turpentine, Venice—N.F. IV

Larch Turpentine.—Oleo-resin fr. *Larix europaea*, De C., or *Pinus Larix*, L., *Coniferae*.—HABIT.: Middle & southern Europe.—Yellow, sometimes greenish, limpid, tenacious, thick liq.; pleasant, arom. odor; hot, pungent,

somewh. bitter taste; becomes hard & brittle on prolonged expos. to air.—SOL.: Glac. acetic acid; amylc alcohol; acetone; caustic alkalies; slowly but freely in A.—CONSTIT.: Volat. oil; resin.—USES: *Intern.*, in chronic vesical & bronchial catarrhs.—*Extern.*, rubefac. in form of plasters & ointments.

Turpeth—B.P.; Fr. Cod.

Root of *Ipomoea Turpethum*, R. Brown, *Convolvulaceae*.—HABIT.: East Indies.—CONSTIT.: Volat. oil; jalapin; resin (5%–10%; a mixt. of turpethin & turpethins).—ACTION: Purgat.—DOSE: 0.3–1.3 Gm. (5–20 grn.).

TURPETH MINERAL—see Mercury Subsulphate

Turquoise—Mineral

Occur.: Persia; Turkestan; U. S.—COMPOS.: $2\text{Al}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot 5\text{H}_2\text{O}$.—CRYST. SYST.: Apparent. amorph.—LUSTER: Dull to feebly waxy.—COLOR: Deep blue to apple green (due to CuO).—STREAK: Wh.—FRACT.: Conch.—BRITTLE.—HARDN.: 6.—SP. GR.: 2.6–2.83.—USES: As semi-precious stone.

Tussol

Antipyrine Amygdalate; Antipyrine Mandelate; Phenylglycolantipyrine.— $\text{C}_6\text{H}_5\text{CH}(\text{OH})\text{COOH} \cdot \text{C}_{11}\text{H}_{12}\text{N}_2\text{O} = 340.27$.—Wh. cryst. powd.—SOL.: 15 W., 4 A., 26 E.—MELT.: $52^\circ\text{--}53^\circ\text{C}$.—ACTION: Specific in whoop-cough.—DOSE: 0.06–0.25–0.5 Gm. (1–4–8 grn.) 4–6 t.p.d., accord. to age of child.

Tutocaine

Butamin; *p*-Aminobenzoyl- α .dimethylamino- β -methyl- γ .butanol Hydrochloride; γ .Dimethylamino- α , β .dimethylpropyl-*p*-aminobenzoate Hydrochloride; *p*-Aminobenzoyl-dimethylamino-1,2. dimethylpropanol Hydrochloride.— $\text{NH}_2 \cdot \text{C}_6\text{H}_4 \cdot \text{COO} \cdot \text{CH}(\text{CH}_3) \cdot \text{CH}(\text{CH}_3) \cdot \text{CH}_2 \cdot \text{N}(\text{CH}_3)_2 \cdot \text{HCl} = 286.73$.—Fine, colorl. needles.—SOL.: Abt 7 cold, 5 warm, W.—MELT.: $213^\circ\text{--}215^\circ\text{C}$.—ACTION: Local Anesth.—USES: As of procaine, in 0.2%, 0.5%, & 1%, solut.

TYLCALSIN—see Calcium Acetylsalicylate

TYLLITHIN—see Lithium Acetylsalicylate

Tylophora—B.P.C.

Lvs of *Tylophora asthmatica*, Wight & Arnott, *Asclepiadeae*.—HABIT.: India; Ceylon; Moluccas.—CONSTIT.: Tylophorine; also an emetic principle.—ACTION: Expector.; Emet.—USES: As of ipecac.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).—As emet., 1–2 Gm. (15–30 grn.).

Typhoid Diagnostic Ficker

A specially treated & sterilized typhoid culture, which serves f. carrying out the Gruber-Widal typhoid test & which obviates the use of living bacilli & the microscope. Also used f. paratyphoid, paratyphoid A & B, coli, & dysentery bacteria (Shiga & Flexner).—In carrying out the test, some blood serum fr. the patient is mixed w. a sterilized solut. NaCl, & a part of this is mixed in turn w. the diagnostic fluid. The reaction is positive when the bacteria present in the diagnostic liq. conglutinate &

sink to the bottom, while the liq. portion becomes clear.

Typhoid Ox-bile Diagnostic Kayser-Conradi Merck

Sterilized ox-bile marketed in: (1) sealed tubes; & (2) tubes closed w. a rubber stopper & parchment-paper cap.—**USES:** For enriching blood cont'g only few typhoid or paratyphoid bacilli, & hence easily permitting the detect'n of these bacilli in the early stages of the dis. Ea. tube cont's 5 cc. (75 M) of the sterilized ox-bile, sufficient f. diagnostic purposes. Abt 2.5 cc. (40 M) of blood drawn fr. the ear lobe or finger tip of the patient suspected of having typhoid are added to the contents of a tube; the latter is then properly closed w. the accompanying cap. & heated in an incubator at 37° C. f. 14–20 hrs. Even if only 2–4 typhoid germs were present, the incubated material enables pure typhoid or paratyphoid cultures to be obtained w. certainty.

Tyramine

Parahydroxyphenylethylamine Hydrochloride; Uteramine; Tocosine; Systogene.— $\text{HO.C}_6\text{H}_4\text{.CH}_2\text{CH}_2\text{NH}_2\text{.HCl}$ = 173.60.—Salt of one of the act. constit. of ergot, but now obt'd synthetically.—Alm. wh., cryst. powd.—**SOL.:** Eas. W.—**ACTION:** As of adrenalin, but weaker.—**USES:** Shock, collapse; causes uterine postpartum contractions.—**DOSE:** 0.02–0.04 Gm. ($\frac{1}{3}$ – $\frac{2}{3}$ grn.) subcut.

TYRATOL—see Thymol Carbonate

TYRITE—see Fergusonite

L-Tyrosin Merck

β -Paraoxyphenyl- α -aminopropionic Acid; Oxyphenylalanine.— $\text{C}_6\text{H}_4(\text{OH}).\text{C}_2\text{H}_3(\text{NH}_2).\text{CO}_2\text{H}$ = 181.14.—Cleavage product of proteids, obt'd by heating albuminoids w. KOH.—Wh., lustr. need.; decomp. by heat.—**SOL.:** Alkalies; alm. insol. W.; v. sltly A., E.—**USES:** As chemical vaccine in poison. by vipers.

U

ULEXINE—see Cytisine

Ulexite—Mineral

Boronatrocacite.—**OCCUR.:** Iquique, Chili; Nevada, U. S.—**COMPOS.:** $\text{B}_5\text{O}_9\text{CaNa}_6\text{H}_2\text{O}$.—**USES:** Source of boric acid & borax.

Ullmannite—Mineral

Antimonial Nickel; Nickel Stibene; Nickel Antimonyglance; Antimonynickelglance.—**OCCUR.:** North Germany; Carinthia; Sardinia.—**COMPOS.:** NiSbS .—**CRYST. SYST.:** Reg. pentag. hemih.—**COLOR:** Steel-gray to silver-wh.—**HARDN.:** 5–5.5.—**SP. GR.:** 6.2–6.7.

Ultramarine

A blue pigment occur'g naturally as lapis lazuli, but made synthetically by igniting a mixt. of kaolin, dried Na_2CO_3 , & S (or dried Na_2SO_4), & carbon.—The resulting product is believed to have the formula $\text{Na}_7\text{Al}_6\text{Si}_6\text{O}_{24}\text{S}_2$.—Blue, insol. powd. or lumps; eas. decomp'd by acids (even CO_2) w. liberation of H_2S .—**USES:** Valuable pigment; in calico printing, printing ink, wall paper, paint, mottled soap; laundry use; "whitening" sugars; coloring celluloid, paper, tiles, cements, rubber, & textiles.—Besides the blue ultramarine, a green product is also of commercial interest, but red, yellow, white, & violet ultramarines are also known.

ULTRAMARINE YELLOW—see Barium Chromate

UNICORN ROOT, FALSE—see Aletris

UPERSARA—see Hemidesmus

URADAL—see Carbromal

URAL, or URALINE, or URALIUM—see Chloralurethane

Uramil

Murexane; Dialuramide; Aminobarbituric Acid; Aminomalonylurea— $\text{CO}(\text{NH.CO})_2\text{CH.NH}_2$ =

143.08.—Fr. alloxantin & NH_4Cl by boil.—Wh. to reddish cryst. powd.—**SOL.:** Cold H_2SO_4 or alkalies; insol. W.

URANIC ANHYDRIDE—see Uranium Oxide, Red, Uranic

Uranine Merck

Uranine Yellow.— $\text{C}_{20}\text{H}_{10}\text{O}_5\text{Na}_2$ = 376.18.—Sod. salt of fluorescein.—Yellowish-brown powd.—**SOL.:** A.; also in W. w. yellow color, & w. intense yellowish-green fluorescence, partic. on add. NaOH.—**USES:** Detect. intraocular lesions by giving per os 3–6 Gm. (45–90 grn.) (children 1.6–2 Gm. [25–30 grn.]); within 20 min. the aqu. humor is colored intensely green—the green color does not show when conjunctivitis is present, but is evident in glaucoma & iritis. Also test f. death. If abt 1 Gm. (15 grn.) be inj. into human body, the whites of the eyes will acquire a greenish color within 1 hr if life still exists, otherwise no coloration is observed.—*Techn.*, dyeing silk & wool yellow.

do. A

USES: Examining subterranean waters. No toxic action on fish. Serves to ascertain source of springs, connection between streams & sea, determ'g approx. vol. of W. delivered by a spring, detect'g contamination of polluted W. of streams in drinking W., infiltration of soil w. waste waters of factories, &c. Proportion of 1:10,000,000 W. employed; still efficient in solut. of 1:2,000,000,000.

URANINE NIA—see Fluorescein-Sodium, Powder

URANINE YELLOW—see Uranine

Uraninite—Mineral

Pitchblende.—**OCCUR.:** Joachimsthal & Příbram, Bohemia; Hungary; Norway; U. S.—

COMPOS.: Salts of uranic acid, $U(OH)_6$, the H of which is replaced by tetravalent uranium & also lead & o. heavy metals.—CRYST. SYST.: Reg.—LUSTER: Pitch-like, dull, submetallic.—COLOR: N'ly black; somet. grayish, greenish or brownish.—STREAK: Olive-green, gray, dark-brown.—FRACT.: Conch. to uneven; brittle.—HARDN.: 5.5.—SP. GR.: *Cryst.* 9–9.7; *massive*, 6.4 upwards.—USES: Source of uranium salts & radioactive substcs.

Uranium Merck

U = 238.20; disc. by Klaproth, in 1787.—Black, v. hard, fused, radioactive mass; has the highest atomic wt. (238.5); burns in air at 200° C. & becomes converted into uranouranic oxide. On vigorous shak'g, the metallic particles exhibit decided phosphorescence.—SOL.: Acids.—SP. GR.: 18.7.—MELT.: Abt 1850° C.—The uranium salts when inj. subcut. or intraven., are the most toxic of all metal salts, and are 4 times more powerful as antiseptics than phenol.—USES: *Techn.*, only in form of alloy in manuf. gun barrels.

Uranium Acetate Merck—Reagent—Free fr. Sodium

Uranyl Acetate.— $UO_2(C_2H_3O_2)_2 + 2H_2O = 424.30$.—Yellow, cryst. powd.; sltly acetous odor.—SOL.: Eas. W. acidulated w. acetic acid.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.005%
Sulphate (SO_3).....	0.010%
Sodium (Na).....	0.050%
Earths (as Ca).....	0.005%
Uranous Salt (U^{IV}).....	0.120%
Foreign Metals.....	0.000%

USES: Prepar'g volumetric soluts; detect'g Na microscopically, alkaloids, glucose, albumin, HCN, H_3PO_4 , mercury oxycyanide; determ'g As, P, Sr, V, & Bi; separ. Cr & V; activator in bacterial oxidat'n processes.

Uranium Acetate Merck—C.P., Free fr. Sodium

Uranyl Acetate.— $UO_2(C_2H_3O_2)_2 + 2H_2O = 424.30$.—Yellow, cryst. powd.—SOL.: W. + a little acetic acid.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.020%
Foreign Metals.....	0.000%
Sodium (Na).....	0.10%
Uranous Salts (U^{IV}).....	0.24%

USES: *Chem.*, As of the Reagent, above.—*Medic., intern.*, in diabet.; *extern.*, as antisept. in acute coryza (1 drop of a 0.5–1% aqu. solut. in each side of nose 2–3 t.p.d.), & as 1% snuff.—CAUT.: Powerful protoplasmic poison.

“URANIUM ACETATE”—see Uranium & Sodium Acetate

Uranium Benzoate

Uranyl Benzoate.— $UO_2.(C_7H_5O_2)_2 = 512.35$.—Yellow powd.—SOL.: Sltly W., & A.

URANIUM DIOXIDE—see Uranium Oxide, Black, Uranous

Uranium Nitrate Merck—Reagent

Uranyl Nitrate.— $UO_2(NO_3)_2 + 6H_2O = 502.31$.—Yellow, odorl. cryst.—SOL.: Abt 1 W. (solut. acid to litmus); also readily in A., E.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.002%
Sulphate (SO_3).....	0.005%
Sodium (Na).....	0.050%
Earths (as Ca).....	0.005%
Uranous Salt (U^{IV}).....	0.060%
Foreign Metals.....	0.000%

USES: Indicator; prepar'g volumetric soluts; determ'g P & S; separ. tungstic acid fr. tungstates; detect'g cinnamic acid in benzoic acid; reag. f. H_2O_2 & phenols (Aloy; Aloy-Laprade), morphine & alkaloids (Aloy; Lamal), glucose (Bilinski), cinnamic acid (Jorissen), albumin (Kowalewski; Oszacki), HCN (Lea), H_3PO_4 (Leconte), mercury oxycyanide (Messner), apomorphine (Wangerin).

Uranium Nitrate Merck—C.P., Free fr. Sodium

Uranyl Nitrate.— $UO_2(NO_3)_2 + 6H_2O = 502.31$.—Light-yellow, effloresc., odorl., radioactive prisms.—SOL.: Abt 1 W., freely in A., & E.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.010%
Sulphate (SO_3).....	0.010%
Sodium (Na).....	0.10%
Uranous Salt (U^{IV}).....	0.06%
Foreign Metals.....	0.000%

USES: *Chem.*, as of the Reagent, above.—*Medic.*, as Antidiabetic, *intern.*, in diab., phth.—*Extern.*, indolent ulcers (1:225 aqu. solut. as wash), & 0.5%–1% solut. as inj. in gonorrh.—Also photo.—DOSE: Aver., 0.01 Gm. ($\frac{1}{2}$ grn.), U.S.P. IX; 0.06–0.3 Gm. (1–5 grn.) w. much W. 2–3 t.p.d. after meals, B.P.C. It has been stated that as much as 1 Gm. (15 grn.) may be given in diabetes.

do. Merck—Cryst.

USES: Photogr.; manuf. uranium glaze.

Uranium Oxide—Black—Uranous

Uranium Dioxide.— $UO_2 = 270.20$.—Black powd.; formerly supposed to be the metal.—SOL.: HNO_3 .—USES: Black pigment f. porcelain.

do. —Dark-orange

Potassium Uranate.— $K_2U_2O_7 = 666.60$.—Orange powd.—SOL.: Acids.—USES: Painting on porcelain.

Uranium Oxide—Red—Uranic

Uranium Trioxide; Uranic Anhydride; Uranic Acid.— $UO_3 = 286.20$.—Orange-red powd.—SOL.: Mineral acids.—USES: *Techn.*, paint, porcelain, & as mordant in calico printing.

"URANIUM OXIDE HYDRATED"—see "Ammonium Uranate"

"Uranium Oxide, Yellow"—see Sodium Uranate

Uranium "Oxybromide"

Uranium & Ammonium Bromide; Uranyl Ammonium Bromide.— UO_2Br_2 w. varying quant. NH_4Br .—Deliq., brownish-yellow cryst.—SOL.: W.—Keep well stoppered.

"Uranium Oxychloride"

Uranium Ammonium Chloride; Uranyl Ammonium Chloride.— $\text{UO}_2(\text{NH}_4)_2\text{Cl}_4 \cdot 2\text{H}_2\text{O}$ = 484.15. The NH_4Cl content varies.—Greenish-yellow, deliq. cryst.—SOL.: W.

do. —Free fr. Alkali

Uranyl Chloride.— $\text{UO}_2\text{Cl}_2 + \text{H}_2\text{O}$ = 359.14.—Yellow, deliq. cryst.—SOL.: W., A., E.—CAUT.: Keep fr. air.

Uranium Phosphate

Uranyl or Uraic Phosphate; Monouranylorthophosphate.— UO_2HPO_4 = 366.25.—Yellow micro-cryst. powd.—SOL.: Acids; insol. W.

"Uranium Sulphate"

Uranium (or Uranyl) & Sodium Sulphate Merck.— $\text{UO}_2\text{SO}_4 \cdot \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$ = 544.35.—Yellowish-green cryst.—SOL.: W.

do. Merck—Free fr. Sodium

Uranyl Sulphate.— $\text{UO}_2\text{SO}_4 + 3\text{H}_2\text{O}$ = 420.31.—Lemon-yellow cryst. mass.—SOL.: Abt 5 W.

URANIUM TRIOXIDE—see Uranium Oxide, Red, Uraic

"URANIUM YELLOW"—see "Ammonium Uranate"

URANIUM YELLOW—see Sodium Uranate

URANIUM & AMMONIUM BROMIDE—see Uranium "Oxybromide"

Uranium & Ammonium Carbonate

Uranylammium Carbonate.— $\text{UO}_2\text{CO}_3 \cdot 2(\text{NH}_4)_2\text{CO}_3$ = 522.38.—Yellow cryst.; decomp. by air.—SOL.: W.—USES: *Techn.*, in uranium-yellow glazes.

URANIUM & AMMONIUM CHLORIDE—see Uranium "Oxychloride."

Uranium & Ammonium Fluoride

$\text{UO}_2\text{F}_2 \cdot 3\text{NH}_4\text{F}$ = 419.32 + aq.—Greenish-yellow cryst. powd.—SOL.: Eas. W.; sltly in HF; insol. A.—USES: For roentgen-ray work; fluoresces on expos. to roentgen rays.

Uranium & Barium Oxide—Orange or Yellow

Barium Diuranate.— BaU_2O_7 = 725.77.—Orange, or yellow, powd.—SOL.: Acids.—USES: Painting porcelain.—CAUT.: Poison!

Uranium & Calcium Phosphate

Uranylcalcium Phosphate.— $(\text{UO}_2)_2\text{Ca}(\text{PO}_4)_2$ = 770.55.—Found as Uranite & Autonite (these may be used inst. of radium).—Greenish-yellow cryst. powd.—Insol. W.—USES: Source of uranium.

Uranium & Potassium Nitrate

Uranylpotassium Nitrate.— $2(\text{KNO}_3) \cdot \text{UO}_2(\text{NO}_3)_2$ = 596.43.—Greenish-yellow, cryst. powd.—SOL.: W.

Uranium & Potassium Sulphate

$\text{UO}_2\text{SO}_4 \cdot \text{K}_2\text{SO}_4 + 2\text{H}_2\text{O}$ = 576.55.—Greenish-yellow, cryst. powd.—SOL.: Eas. W.

Uranium & Sodium Acetate—Cryst.

"Uranium Acetate."— $\text{UO}_2(\text{C}_2\text{H}_3\text{O}_2)_2 + \text{NaC}_2\text{H}_3\text{O}_2$ = 470.30; (the sodium acetate content varies).—Yellow cryst.—SOL.: W.—ACTION: Antisept.—USES: Acute coryza.—APPL.: 0.5%–1% aq. solut. snuffed up the nose 2–3 t.p.d.; or as snuff (1:100 powd. coffee).

URANIUM & SODIUM SULPHATE—see "Uranium Sulphate"

Uranium & Strontium Oxide

Strontium Diuranate.— SrU_2O_7 = 676.03.—Yellow powd.—SOL.: Acids.—USES: Painting porcelain.

URANOTANTALITE—see Samarskite

URANYL SALTS—see under Uranium

URARI—see Curare

Urea Merck—C.P.

Carbamide; Carbonyldiamide.— $\text{CO}(\text{NH}_2)_2$ = 60.05.—Constit. of urine; artif. fr. KCNO & $(\text{NH}_4)_2\text{SO}_4$, or fr. diphenylcarbonate by dry NH_3 , or fr. calcium cyanamide.—Wh. cryst.—SOL.: 1 W., abt 10 cold & 1 boil'g. A., & insol. C., E.—MELT.: 131° – 133° C.

MAXIMUM OF IMPURITIES

Nonvol. Matter	0.05%
Substcs Insol. in Alcohol	0.02%
Chloride (Cl)	0.003%
Sulphate (SO_3)	0.005%

USES: Test f. lignin (Ihl), & leucine (Lippich).

do. Merck

DESCRIPT., SOL., & C.: As of the preced'g.—ACTION: Diur.; Antituberc.—USES: Hepatic cirrhosis, & simple serous pleurisy (to obviate puncture), renal calculus, ascites, & tuberculosis.—*Techn.*, rendering explosives & celluloid compositions stable; manuf. intermediates & fertilizers.—DOSES: In *ascites & tubercul.* 0.6–1.3 Gm. (10–20 grn.) 3–4 t.p.d.; in *renal calculus*, 10–20 Gm. (150–300 grn.) p.d., f. a period of 2 to 3 weeks.—INCOMP.: Chloral hydrate, lead acetate.

UREA CALCIUM BROMIDE—see Ureabromin

Urea Citrate

Acid Urea Citrate.— $\text{CO}(\text{NH}_2)_2 \cdot \text{C}_6\text{H}_8\text{O}_7$ = 252.15.—Wh., cryst. powd.—SOL.: W., A.

Urea Hydrochloride Merck

$\text{CO}(\text{NH}_2)_2 \cdot \text{HCl}$ = 96.52.—Wh. to faintly yellowish cryst., or deliq. cryst. decomp. by W.—CAUT.: Keep dry & fr. air.

Urea Nitrate Merck

$\text{CO}(\text{NH}_2)_2\text{HNO}_3 = 123.07$.—Most characteristic salt of urea.—Wh. leaflets.—SOL.: W., A.; sltly HNO_3 .

Urea Oxalate

$\text{CO}(\text{NH}_2)_2 \cdot \text{C}_2\text{H}_2\text{O}_4 = 150.08$.—Wh. cryst.—SOL.: W.

Ureabromin

Urea Calcium Bromide.— $\text{CaBr}_2 \cdot 4\text{CO}(\text{NH}_2)_2 = 440.12$.—Colorl., lustr., odorl. sltly hygrosc. cryst. or wh. powd.; 36% Br.—SOL.: Eas. W., A.; insol. C., E., petrol. E.—MELT.: 186°C .—ACTION: Sedat.; Nervine.—USES: Epilepsy; where bromides indicated, partic. in nervous, neurasthenic, & hysterical, conditions.—DOSE: Adults, 2–6 Gm. (30–90 grn.); childr., 0.6–2 Gm. (10–30 grn.).—Rectally, 4–6 Gm. (60–90 grn.).—Intraven., 4 Gm. (60 grn.) in solut. correspond'g to blood in alkalinity & osmotic pressure.

Urease

A standardized prep'n of the urealytic enzyme fr. the soy bean (*Soja hispida*).—Fine wh. powd.—SOL.: Freely in W.; solut. opalesc.—USES: Determ. urea in blood, urine, & o. body liquids (urea is decomp'd w. form'n of NH_3 or ammon. carbonate which is absorbed by $n/50 \text{ HCl}$; residual HCl is then titrated).

URETHANE—see Ethyl Carbamate

URETHANE-CALCIUM BROMIDE—see Calmonal

Urethylane

Methylurethane.— $\text{CO}(\text{NH}_2)\text{OCH}_3 = 75.06$.—Fr. CNCI (or NH_2COCl) & methyl A.—Colorl. cryst.—SOL.: W., A.—MELT.: 52°C .—BOIL.: 177°C .

Urginea—B.P.

Indian Squill.—Younger bulbs of *Urginea indica*, Kunth. (or of *Scilla indica*, Baker, tho. not official), Liliaceæ.—HABIT.: India.—CONSTIT., ACTION & USES: As of squill (*q.v.*).—DOSE: 0.06–0.2 Gm. (1–3 grn.).—Vinegar (abt 1:4) 0.3–1 cc. (5–15 M).—Syr. (17.5% vinegar by wt.) 2–4 cc. (30–60 M).—Tr. (1:5) 0.3–1 cc. (5–15 M).

URSOL—see Methenamine

Uromelanin

Color. matter fr. urine.— $\text{C}_{36}\text{H}_{43}\text{N}_7\text{O}_{10} = 733.58$.—Amorph., black powd.—SOL.: A., & caustic alkalies.

UROPURGOL—see Helmitol

UROTROPIN = METHENAMINE

UROXIN—see Alloxantin

URSOL D—see *p*-Phenylenediamine

Ursor

$\text{C}_{30}\text{H}_{48}\text{O}_3 + 2\text{H}_2\text{O} = 492.57$.—Cryst. prin. found besides arbutin in lvs of *Arctostaphylos Uva-ursi*, L.—Wh., cryst. powd.—SOL.: A., E.; insol. W.—MELT.: 264° – 268°C .—ACTION: Diuret.—DOSE: 0.05 Gm. ($\frac{3}{4}$ grn.).

Urystamine

Methenamine-Lithium Benzoate.—SOL.: Eas. W.—USES: Gout, rheumat., vesical & urethral catarrh, & to promote elim. of uric acid.—DOSE: 1 Gm. (15 grn.).

Ustilago

Corn Smut; Corn Ergot; Corn Brand.—A parasitic fungus, *Ustilago segetum* Bull (*Ustilago Maydis*, Leveille), developed upon the fruit of *Zea Mays*, L., *Ustilaginæ*.—HABIT.: North America; Europe.—CONSTIT.: *Ustilagine*; fixed oil; maisenic (sclerotic) acid; secaline.—ACTION: Ecboic like ergot; contractile power intermittent, not continuous as w. ergot.—DOSES: 1–4 Gm. (15–60 grn.).—Fl'dextr., 2–8 cc. (30–120 M).

UTERAMINE—see Tyramine

Uva Ursi—U.S.P. X; B.P.

Bearberry.—Dried lvs of *Arctostaphylos Uva-ursi* (L.), Sprengel, Ericaceæ.—HABIT.: Northern Europe; North America, south to N. J., Colorado, & Calif.; Asia.—CONSTIT.: Volat. oil; arbutin; quercetin; ericolin; urson; myricetin; ericicol; resin; tannin (6%–7%, B.P.C.); gallic, ellagic, & malic acids; fat; wax; gum; coloring matter.—ACTION: Tonic; Diur.; Antilithic; Nephritic; in large doses Emet.; Purgat.; Emmen.—USES: Chiefly in urinary dis., as cystitis, gravel, incontin. of urine, gleet, gonorr., leucor., menorrhagia; nephritis, &c.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose, 2 Gm. (30 grn.).—Hydroalcoh. extr., 0.3–1 Gm. (5–15 grn.).—Fl'dextr., 2–4 cc. (30–60 M).

V**Valamin**

Amylene-hydrate Isovalerate.— $(\text{CH}_3)_2(\text{C}_2\text{H}_5)\text{COOC}_5\text{H}_9 = 172.21$.—Colorl. liq.; odor & taste of valerian.—Misc.: All proport. w. oils; sltly sol. (1:1000) in W.—ACTION: Sedat.; Soporific.—USES: Insomn., neurasthenia, nervousness, hysteria, palpitation, hysterical excitement, nervous cough, angina pectoris, bronchial asthma, gastro-intest. disturb., headache, lumbar pains, vomit. of pregnancy, & morphine

habit, & preliminary to surgical operations.—DOSE: 0.25–0.5 cc. (4–8 M) in *insomnia*; as sedat. 0.25 cc. (4 M) 3–4 t.p.d.; in nervous insomnia it is given bef. retiring.

VALERAL—see Aldehyde *iso*-Valeric

***iso*-Valeramide**

$(\text{CH}_3)_2\text{CH} \cdot \text{CH}_2 \cdot \text{CO} \cdot \text{NH}_2 = 101.12$.—Fr. ammon. isovalerate by heat.—Wh. cryst.—SOL.:

A., W.—MELT.: 126°–128° C.—BOIL.: 230°–232° C.

Valerian—U.S.P. X; B.P.

Dried rhizome & roots of *Valeriana officinalis*, L., *Valerianaceæ*.—HABIT.: Europe; northern Asia; natur. in eastern U. S.—CONSTIT.: Volat. oil (abt 1%, B.P.C.); valerianin; chatinine; valeric, formic, malic, & acetic acids; tannin; resin; mucilage.—ACTION: Anod.; Antispasm.; Stim.; Nervine.—USES: Hysteria; epilepsy, hypochond., headache, fevers, &c.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose, 0.75 Gm. (12 grn.).—Alcoh. extr., 0.06–0.3 Gm. (1–5 grn.).—Fl'dextr., 0.3–0.6 cc. (5–10 M).—Tr. (1:5), 4–8 cc. (1–2 fl. dr.).—Ammon. Tr. (1:5), 4–8 cc. (1–2 fl. dr.).

do. Indian—B.P.

Dried rhizome & roots of *Valeriana Wallichii*, D. C., *Valerianaceæ*.—HABIT.: Himalayas.—CONSTIT.: Volat. oil (chiefly); free valeric acid; resin.—ACTION, USES, & DOSES: As of valerian.

iso-Valeryl Chloride

(CH₃)₂.CH.CH₂COCl = 120.56.—Colorl. liq.; decomp. w. W.—Sp. Gr.: 0.989 at 20° C.—BOIL.: Abt 114° C.

VALERYL DIETHYLAMIDE—see Valyl

VALERYLOXYBUTYREIN HYDROBROMIDE—see Quetol

Validol

Menthyl Valerate, C₁₀H₁₉O.C₆H₉O, cont'g abt 30% free menthol.—Colorl. liq.; mild, pleasant odor; cooling, faintly bitter taste; diss. consid. quantities of menthol.—SOL.: Eas. A., C., E., oils; insol. W.; decomp. by alkalies.—ACTION: Nerve Sedative; Carmin.; Stomachic.—USES: Hysteria, flatulence, vomiting of pregnancy, asthma, tympanites, irritated bladder, neurasthenia, anorexia, migraine, epilepsy, gastralgia, seasickness, &c.—DOSE: 0.6–1 cc. (10–15 M) on sugar, sev'l t.p.d.

Validol Camphorated

Validol w. 10% camphor.—Colorl., thick liq.; cool, faintly bitter taste.—SOL.: Eas. A., oils; insol. W.—ACTION: Local Analg.—USES: Toothache, & where prompt stimulant restorative indicated.—DOSE: 0.6–1 cc. (10–15 M) 3 t.p.d., on sugar.

VALISAN—see Brovalol

VALLET'S MASS—see Mass Ferrous Carbonate

Valser's Solution—Test for Alkaloids

Satur. solut. HgI₂ in 10% solut. KI.—Affords wh. ppts w. alkaloids.

Valyl

Valeryl Diethylamide.—CH₃.CH₂.CH₂.CH₂.CO.N(C₂H₅)₂ = 157.21.—Colorl. liq.; aromat. odor & peppery taste.—SOL.: Eas. A., E.; abt 25 W.—BOIL.: 210° C.—ACTION: Sed.; Antispasm.—USES: Hysteria, neural., hemicrania, menstrual irregularities, insomn. of nervousness, neurasthenia, &c.—DOSE: 1–3 caps. (ea. cont. 0.12 cc. [2 M] valyl) 3 t.p.d.

VALZIN—see Sucrol

Vanadinite—Mineral

OCCUR.: U. S.; Mexico; Chile; Uruguay; Paraguay; Spain.—COMPOS.: (VO₄)₃CIPb₅.—CRYST. SYST.: Hexag. pyram. hemih.—LUSTER: Resinous on fract.—COLOR: Deep-red, reddish-brown, yellowish-brown, or yellow.—STREAK: Wh. to yellowish.—FRACT.: Uneven or flat conch.; brittle.—HARDN.: 2.75–3.—Sp. Gr.: 6.66–7.10.—USES: Source of vanadium compds.

Vanadium Merck

V = 51.00; disc. by Sefström in 1830.—Most important source is "Patronite" a natural sulphide, found in Peruvian Andes, & obt. by direct smelting of the ore.—Light-gray, lustr. powd. or fused mass.—SOL.: HNO₃.—Sp. Gr.: 5.5 at 15° C.—MELT.: 1720° C.—USES: Making resistant vanadium steel.—Prep's of V have also been advocated in tuberculosis, anemia, chlorosis, given intern., intraven., or subcut.

Vanadium Chloride Merck

Hypovanadyl Hydrochloride; Divanadyl Tetrachloride.—V₂O₂Cl₄ + 5H₂O = 365.92 (50% V₂O₅).—Dark-green, syrupy mass.—SOL.: W., A.—USES: *Techn.*, as mordant in printing fabrics.

VANADIUM PENTOXIDE—see (Acid) Vanadic Anhydride

VANADIUM SESQUIOXIDE—see Vanadium Trioxide

Vanadium Sulphate

Vanadyl Sulphate.—VOSO₄ + 2H₂O = 199.09.—Blue, cryst. powd.—SOL.: W.—USES: *Techn.*, as mordant in dyeing & printing textiles; manuf. colored glass; blue & green glazes on pottery & porcelain.

Vanadium Sulphide

Vanadium Trisulphide.—V₂S₃ = 198.18.—Greenish-black powd.—Insol. W.

Vanadium Trioxide

Vanadium Sesquioxide.—V₂O₃ = 150.00.—Black powd.; in air gradually converted into indigo-blue cryst. of vanadous acid (V₂O₄).—SOL.: Acids.—USES: Mordant in dyeing, & in manuf. steel, in making easily malleable & ductile alloys; manuf. arc light electrodes.

VANADIUM TRISULPHIDE—see Vanadium Sulphide

VANADYL SULPHATE—see Vanadium Sulphate

Vanilla—N.F. V; B.P.C.

Cured, full-grown, unripe fruit of *Vanilla planifolia*, Andrews, *Orchidaceæ*.—HABIT.: Mexico; West Indies; Reunion; Ile de France; Seychelles.—CONSTIT.: Vanillin (2%–2.75%, B.P.C.); resin (4%, B.P.C.); vanillic acid; sugar (10%, B.P.C.).—ACTION: Emmen.; Aphrodisiac; Antihysterical; Antirheumatic; Aromat.—USES: *Techn.*, in manuf. of chocolate & confectionery; perfumery; flavor f. syrups, tinctures, &c.—DOSE: 0.5–1.3 Gm. (8–20 grn.).

VANILLA PLANT—see *Liatris*

VANILLIC ALDEHYDE—see Vanillin

Vanillin Merck—Refined—U.S.P. X

Methylprotocatechuic Aldehyde; Vanillic Aldehyde.— $C_6H_3.CO.H.OCH_3.OH[1:2:4] = 152.10$.—Occurs naturally in Vanilla; also in potato parings & Siam benzoin; artif. fr. eugenol by $KMnO_4$, or fr. coniferin by CrO_3 mixture, & o. ways.—Wh. or v. sltly yellowish cryst. needles; pleas. arom. odor; vanilla taste. Gradually somewh. oxidized in air.—SOL.: 100 W., abt 20 G., at 25° C., 16 W. at 80° C., & freely in A., C., E., U.S.P. X; (eas. sol. CS_2 , fatty & vol. oils, & aqu. soluts alkali hydroxides, B.P.C.).—MELT.: 80°–82° C.—BOIL.: 285° C., B.P.C.—ACTION: Stim.; Tonic; Aphrodisiac.—USES: Dyspep.—*Techn.*, chiefly f. perfumery & confectionery, e.g., in artif. cognac, chocolate, &c. 1 part vanillin equals 400 parts vanilla pods; in manuf'g liqueurs, 2.5–3 parts vanillin replace 500 parts tinct. vanilla; also in tests f. camphor (Bohrisch), sesame oil (Breinl), indol (Buard; Denigès; Steensma), alkaloids (Ellram), formaldehyde (Friesse; Utz), lignin (Grafé), phenols (Hartwich), bile acids (Inouye; Ito), pentose (Jolles), phloroglucinol (Lindt), antipyrine (Primot), Cl in benzoic acid, & S (Raikow), orcin (Ronceray), ketones & volat. oils (Rosenthaler), albumin, HCl, indol, & skatol (Steensma).—DOSE: 0.01–0.05 Gm. ($\frac{1}{10}$ – $\frac{3}{4}$ grn.); aver. dose: 0.03 Gm. ($\frac{1}{2}$ grn.).

VANILLINETHYLCARBONATE-PARAPHENETIDIN—see Eupyrin

VASACA—see Adhatoda

VASELIN—see Petrolatum

VASELIN, OXYGENATED—see Vasogen

Vasicine Tartrate

Tartrate of alkaloid fr. lvs Adhatoda Vasica, Nees, an East-Indian Acanthaceæ.—Wh., cryst. powd.—SOL.: Sltly W., A.—ACTION: Has toxic action on lower animals, but is without such effect on higher animals, hence may be used as an insecticide. To what extent the alkaloid & salt exhibit the expector., antiasthmatic & antispasm. properties of the lvs of the plant, for which the latter are used by the aborigines, is still to be investigated.

VASOCONSTRICTINE—see Epinephrine

Vasogen

Oxygenated Vaselin.—Readily emulsifies w. W. & renders many active remedies like Creolin-Pearson, menthol, iodine, ichthyol, pyoktanin, &c., readily absorbable.—Yellowish-brown, viscid mass; alkaline reaction.—USES: Chiefly as vehicle f. remedies in skin dis., but also intern. The Iodine-Vasogen is partic. useful as embrocation (5 Gm. [75 grn.] p.d.) in syph. & glandular enlargements, & intern. in arteriosclerosis in doses of 0.5–0.8 cc. (8–12 M) p.d. w. meals. The Iodoform-Vasogen is useful in tuberculous processes, while inunctions of Ichthyol-Vasogen have proved satisfactory in rheumatism.

VEGETABLE CALOMEL—see Podophyllum

VEGETABLE MERCURY—see Manaca; Mururé

VEGETABLE PEPSIN—see Papain

VEGETABLE SULPHUR—see Lycopodium

VEGETABLE WAX—see Wax, Japan

VENETIAN RED—see Iron Oxide, Red, Ignited

Vera Diastase

Ferment of high diastatic power obt'd fr. pancreatic gland of the pig.—Light-yellowish powd.—SOL.: W. (not completely).—Digests 150 times its wt starch.—USES: Starch digestant in amylaceous dyspepsia.—DOSE: 0.12 Gm. (2 grn.) & upwards.

Veratrine Merck—N.F. V

Mixt. of alkaloids, chiefly amorph. veratrine & cryst. cevadine ($C_{32}H_{49}NO_9$), w. small quant. crystalline alkaloids sabadinine & sabadine, fr. seeds of *Asagrea officinalis*, Lindley.—Wh. or grayish-wh., odorl. powd.; causes violent sneezing when inhaled; exceedingly irritating to muc. membr.—SOL.: 1760 W., 2.8 A., 0.7 C., & 4.2 E., at 25° C., 1345 W. at 80° C., & insol. petrol. benz. N.F.V (1000 boil. W., 6 E., 3 C., spar. G., abt 80 olive oil, freely in dil. acids, & v. sol. B., & amyl A., B.P.C.).—MELT.: Abt 145°–155° C., B.P.C.—ACTION: Irritant; Sed.; Alter.; Counterirritant; Antipyr.; Analg.—USES: *Intern.*, gout, rheum., neural, scrof., croupous pneumon., pleurisy, erysip., scarlet fever, senile paralysis, epilepsy, dropsy, amaurotic amblyopia, photophobia.—*Extern.*, injuries, stiff joints, neuralg., rheum., sprains, & chron. swellings, in oint.—DOSE: 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.).—MAX. D.: 0.006 Gm. ($\frac{1}{10}$ grn.) single; 0.015 Gm. ($\frac{1}{4}$ grn.) p.d.—APPL.: 1%–4% in oint.—ANTID.: Tannic acid (0.3 Gm. [5 grn.] ev. 15 min.), potass. iodide, camphor, emetics, powdered charcoal, stomach tube, stimulants; morphine & atropine hypoderm.; heat, recumbent position; opium f. the diarrhea.—CAUT.: Poison! Great care!

do. —Cryst.

Cevadine.— $C_{32}H_{49}NO_9 = 591.56$.—Cryst. alkaloid fr. seeds *Schoenocaulon officinale*, A. Gray (*Sabadilla officinarum*, Brandt; *Asagrea officinalis*, Lindley).—Discovered by G. Merck in 1855.—Colorl. cryst.—SOL.: 10–12 A., & E.—MELT.: 205°–210° C.—On heat. w. KOH decomposes into cevine ($C_{27}H_{43}NO_8$), & tiglic acid ($C_5H_8O_2$), & angelic acid.—Better adapted f. internal use than the preceding (which is the better f. extern. use).—ACTION: Sed.; Alter.; Antipyr.; Analg.—USES: Gout, rheum., erysipelas, neural., croupous pneum., & heart diseases.—DOSE: 0.001–0.005 Gm. ($\frac{1}{60}$ – $\frac{1}{12}$ grn.) sev'l t.p.d. in pill or alcoh. solut.—MAX D.: 0.005 Gm. ($\frac{1}{12}$ grn.) single; 0.015 Gm. ($\frac{1}{4}$ grn.) p.d.—CAUT.: Poison!

Veratrine Acetate

Fr. alkaloidal mixt.—Wh. powd.—SOL.: W., A.—ACTION, USES, DOSES, ANTID., &c.: As of veratrine alkaloid.—CAUT.: Poison!

Veratrine Hydrochloride Merck

Fr. alkaloidal mixt.—Wh., amorph. powd.—**SOL.**: W., A.—**ACTION**, **USES**, **DOSES**, **ANTID.**, &c.: As of veratrine alkaloid.

Veratrine Nitrate

Fr. alkaloidal mixt.—Wh. powd.—**SOL.**: W., A.—**ACTION**, **USES**, **DOSES**, **ANTID.**, &c.: As of veratrine alkaloid.

Veratrine Oleate

2% of veratrine in oleic acid.—**SOL.**: E., & oleic acid.—**ACTION**: Rubefacient; Anod.—**USES**: *Extern.*, scrofulous joints, rheum., & sprains; or by inunction, as in pneumonia.

Veratrine Sulphate Merck

Fr. alkaloidal mixt.—Wh. to yellowish powd.—**SOL.**: W., A.—**ACTION**, **USES**, **DOSES**, **ANTID.**, &c.: As of veratrine alkaloid. Also w. arecoline in veter. med. in indigestion in cattle.

Veratrine Valerate

Fr. alkaloidal mixt.—Wh. powd.—**SOL.**: W., A.—**ACTION**, **USES**, **DOSES**, **ANTID.**, &c.: As of veratrine alkaloid.

Veratrole

Pyrocatechindimethyl Ester.— $C_6H_4(OCH_3)_2$ —[1:2] = 138.12.—Fr. veratric acid & Ba(OH)₂ by heat.—Colorl. cryst.—**SOL.**: A., E., fatty oils.—**MELT.**: 23° C.—**BOIL.**: 205°–206° C.—**ACTION**: Antisep.; only one-third as toxic as guaiacol, but far more caustic.—**USES**: *Extern.*, as paint in intercostal neural. (eq. parts veratrole & tinct. iodine), & comb'd w. potass. iodide (5:45) in orchitis.—*Intern.*, in tuberculosis.—**DOSE**: 0.12 Gm. (2 grn.) 3 t.p.d.

Veratrone

Alcohol-free, sterile prep. of Veratrum viride, rendered stable by add'n of 0.75% chlorotone.—Clear liq.; pleas. odor; sltly bitter taste.—**USES**: As of fl'dextr. Veratrum viride.—4 parts = active constit. 1 part drug.

VERATROYLACONINE—see Aconitine Fr. Aconitum Ferox

Veratrum Viride—U.S.P. X

American, or Green, Hellebore; American Veratrum; Indian Poke.—Dried rhizome & roots of Veratrum viride, Aiton, Liliaceæ.—**HABIT.**: North America.—**CONSTIT.**: Jervine; pseudojervine; veratrine (cevadine); rubijervine; veratralbine; veratroidine; resin; starch.—**ACTION**: Sed.; Emet.; Diaphor.; Irritant; Sternutat.; Errhine; Diuret. Retards heart's action without weaken.; checks puerper. convuls.; aborts croup, limits pneum. in the lungs.—**USES**: Fevers, acute inflammations (as pneumonia), mania, puerperal convulsions, laryng., mening., vertigo, diar., dropsy, gout, &c.—*Techn.*, as insecticide.—**Doses**: 0.06–0.2 Gm. (1–3 grn.); aver. dose, 0.1 Gm. (1½ grn.).—Alcoh. extr., 0.015 Gm. (¼ grn.).—Fl'dextr., 0.06–0.25 cc. (1–4 M); *Max. D.*: 0.3 cc. (5 M) single, 1.3 cc. (20 M) daily.—Tinct. (1:10), 0.3–2 cc. (5–30 M); aver. dose, 0.5 cc. (8 M).—**ANTID.**: Emetics, stomach siphon, tannin, stimulants

(whisky, ether, alcohol, ammonia), atropine, strychnine, digitalis, heat, mustard applications, friction, &c.

VERATRUM, WHITE—see Hellebore, White

Verbeña—N.F. IV

Blue Vervain; Wild Hyssop.—Dried overground portion of Verbena hastata, L., Verbenaceæ.—**HABIT.**: U. S.—**ACTION**: Antiper.; Emet.; Diaphor.; Expector.; Bitter Tonic.—**DOSE**: 0.6–2 Gm. (10–30 grn.); aver. dose, 1 Gm. (15 grn.).—**Infus.** (1:20) 60–120 cc. (2–4 fl. oz.) as diaphoretic & expectorant.

VERDIGRIS, CRYSTALLIZED—see Copper Acetate, Normal

VERDITER BLUE—see Copper Carbonate, Blue

VERDITER GREEN—see Copper Carbonate, Green

VERMILION—see Mercury Sulphide, Red

VERNAL PHEASANT'S EYE—see Adonis Vernalis

Verodigen—Tablets, 0.0008 Gm. (1/80 grn.) Each

A substce (Gitalin) obt'd fr. digitalis.—Amorph. powd.—**SOL.**: Abt 600 W.—**ACTION**: Develops the digitalis action (slows the pulse & increases the volume; increases cardiac efficiency; raises lowered blood pressure, etc.). Standardized so that 0.0008 Gm. (1/80 grn.) represents 0.1 Gm. (1½ grn.) prime digitalis leaf.—**USES**: Cardiac weakness w. rapid or irreg. pulse, cardiac insufficiency, & wherever a prompt & reliable digitalis effect is desired.—**DOSE**: 0.0008 Gm. (1/80 grn.) in tablet, in which form mkt'd.

Veronal Merck

Barbital; Diethylmalonylurea; Diethylbarbituric Acid; Malourea (B.P.C.).— $(C_2H_5)_2C:(CONH)_2:CO = 184.15$.—Wh. cryst. powd.; faintly bitter taste.—**SOL.**: 130 cold & 13 boil. W.; 14 A., 75 C., 35 E. at 25° C.; also sol. in acetone, ethyl acetate, & alkalies, petrol. E., acetic acid, & amyl alcohol.—**ACTION**: Reliable Hypnotic.—**USES**: Simple agrypnia, & insomnia accompanying hysteria, extreme nervousness, neurasthenia, hypochondria, melancholia, conditions of anxiety, cough, dyspnea, pains, operations, seasickness, vomiting of pregnancy, epilepsy, chorea, imbecility, idiocy, paresis w. excitement, & promoting both scopolamine & general narcosis; also in cure of morphinism & cocaineism, & mental disturbances; dementia, catatonia, paranoia, alcoholism, delirium tremens, nicotism, lessening the tremors in multiple sclerosis, paralysis agitans, hemiplegia, delirium, &c.; in pneumon., senile pruritus, insom., neuralg., & neurasthenia; whoop-cough; disseminated sclerosis, hemiplegia, & cerebral tumor; gastrointest. derangements associated w. neurasth.; digestive disturb. & tetanus in childr.; also w. chloroform 1½–2 hrs before operations.—*Contraindicated* in renal dis.; extensive heart lesions, espec. myocarditis & aortic regurgit.; insomn. due to pain.—**DOSE**: 0.3–1 Gm. (5–15 grn.), best taken diss. in hot tea or W. In whoop-cough, 0.03 Gm. (½ grn.) f. young, & 0.06–0.1 Gm. (1–1½ grn.) to older, childr., 3–4 t.p.d.; in digest. disturb. & tetanus in childr. 0.04–0.07 Gm. (⅔–1½ grn.) 1–2 t.p.d.; when used

w. chloroform before operations, 1 Gm. (15 grn.).—INCOMPAT.: Calomel, if given at nearly the same time.—ANTID.: Stimulation of vasomotor center; camphor; gastric lavage w. tannin solut.; oxygen; stimulants generally.

do. —Tablets, 5 Grains Each

Veronal-Sodium Merck

Barbital-Sodium; Monosodium Diethylbarbiturate; Soluble Veronal.— $(C_2H_5)_2C:(CONNa-CONH):CO = 206.15$.—Wh., cryst. powd.—SOL.: 5 cold, 2.5 boil., W.; insol. E.; sltly A.—USES & DOSES: As of veronal; partic. useful where exhibition in solut. is desirable. Well adapted also f. rectal admin., & subcut. inj. (0.5 Gm. [8 grn.] diss. in 5 cc. [75 M] W.) in threatening delirium tremens, in epilepsy, etc.

do. —Tablets, 5 Grains Each

VERONAL, SOLUBLE—see Barbital-Sodium; Veronal-Sodium

Veronica—Fr. Cod.

Speedwell; European Tea.—Herb of Veronica officinalis, L., Scrophulariaceæ.—HABIT.: Europe; Asia; natur. in U. S.—CONSTIT.: Volat. oil; bitter substage; tannin.—ACTION: Expector.; Alter.; Tonic; Diur.—USES: Tuberculosis, rheum., & gout, under the name "European Tea."—DOSE: 2–4 Gm. (30–60 grn.).

Vesuvianite—Mineral

Egeran; Idocrase.—OCCUR.: Vesuvius; Alps; Eger, Bohemia; Jordansmühl, Silesia; U. S. & Canada.—COMPOS.: $Si_2O_{77}Al_{12}Ca_{24}(OH)_{10}$.—Aluminum is occas. partly replaced by ferric Fe & Ca by Mg. Fe & Ti may be present.—CRYST. SYST.: Tetragon.—LUSTER: Vitr. to resin.—COLOR: Brown, green, & rarely yellow or pale blue.—STREAK: Wh.—FRACT.: Subconch. to uneven.—HARDN.: 6.5.—SP. |GR.: 3.35–3.45.

VESUVINE—see Bismarck Brown

Vesuvine B

Bismarck Brown B; Metatoluylenediamine-disazobimetatoluylenediamine Hydrochloride.—Dark-brown powd.—SOL.: A., & W.—USES: Stain. leather, cotton, & wool.

Viburnum Opulus—N.F. V

Cramp Bark; High Bush Cranberry; Cranberry Tree; Water Elder; Squaw Bush; Snowball Bush.—Dried bark of Viburnum Opulus, L., var. americanum, Aiton, Caprifoliaceæ.—HABIT.: Europe; Asia; northern North America, south to Pa.—CONSTIT.: Viburnin; valeric acid; brown, bitter resin; tannin; sugar; oxalates, citrates, & malates.—ACTION: Nervine; Antispasm.; Diur.; Tonic; Astring.—USES: Hysteria & pregnancy.—DOSE: 2–4 Gm. (30–60 grn.) in powd. or fl'dextr.; aver. dose 2 Gm. (30 grn.).

Viburnum Prunifolium—N.F. V; B.P.

Black Haw; Sweet Viburnum; Sheep Berry; Stag Bush; Sloe-leaved Viburnum.—Dried root bark of Viburnum prunifolium, L., Caprifoli-

aceæ.—HABIT.: U. S.—CONSTIT.: Viburnin; valeric acid; resin (brown, bitter); tannin; oxalates, malates, & citrates.—ACTION: Uterine Tonic; Nervine; Sed.—USES: Partic. in threatened & habitual abortion; ovar. irrit.; dysmenor., menor., &c.—DOSES: 1–4 Gm. (15–60 grn.); aver. dose, 2 Gm. (30 grn.).—Alcoh. extr., 0.3–1 Gm. (5–15 grn.).—Fl'dextr., 2–4 cc. (15–60 M).

Victoria Blue B

Phenyltetramethyltri-amino-alphanaphtyldiphenylcarbinol Hydrochloride.— $C_{33}H_{31}N_3.HCl = 505.91$.—Lustrous granules of bronze color.—SOL.: Hot W.; sltly cold W.; eas. in A., w. pure blue color.—USES: Dyeing wool, cotton, & silk.

Victoria Yellow

Metanil Yellow.—Sod. salt of metasulphobenzenazodiphenylamine.—Brownish-yellow powd.—SOL.: W., A.—USES: Dyeing wool, silk, & paper. Also f. detect. mineral acids in presence of organic acids.

VIENNA CAUSTIC—see Potassium Hydroxide with Lime

VIENNA GREEN—see Copper Acetoarsenite

VIENNA PASTE—see Potassium Hydroxide with Lime

Vigantol

Vitamine-D (Antirachitic) prepared by treating ergosterin ($C_{27}H_{42}O$) w. ultraviolet light.—Slty yellow, resinous, viscid mass.—SOL.: Eas. A., E., oils; insol. W.—On expos. to light or oxidizing substcs the activity is more or less rapidly impaired without apparent change in physical properties.—USES: Rachitis.—DOSE: Of Vigantol Oil (1% solut.; 1 cc. = 25 drops = 0.01 Gm. vigantol), 5–10 drops, or of Vigantol Pastilles (sugar coated, ea. cont'g 0.002 Gm. vigantol), 1–2 per day, either being thoroly shaken w. warm milk or cocoa (best given fr. a tablespoon), f. infants & young children; of Vigantol Dragees (chocolate coated, ea. cont'g 0.004 Gm. vigantol) 1–2 per day, f. children & adults.—See also Ergosterol.

VINEGAR NAPHTHA—see Ethyl Acetate, Anhydrous

VINETINE—see Oxyacanthine

VINYL TRICHLORIDE—see Trichlorethane

VINYLBENZENE [or, -ZOL]—see Stryene

VINYLTRIMETHYLAMMONIUM HYDROXIDE—see Neurine

Vioform

Nioform; Iodochloroxyquinoline.— $C_9H_4N.OH.ICl = 305.47$.—Greenish-yellow, alm. odorl., bulky insol. powd.; 41.57% I.—SOL.: Slty A.; insol. W.—MELT.: 177° – 178° C.—ACTION: Antisep.; Cicatrizant; Hemostat.—USES: As of iodoform as dust.-powd., oint., supposit., etc.

Violet—B.P.C.

English, Marsh, or Sweet, Violet.—Flowers & herb of Viola odorata, L., Violaceæ.—HABIT.:

Europe & northern Asia; cultiv. in U. S.—
 CONSTIT.: *Flowers*: Volat. oil; violine; viola-
 quercitrin; blue color'g matter.—*USES*: Lax.:
 Corrigent (as syrup); *techn.*, as dye.—*DOSE*:
 12–16 Gm. (3–4 dr.) as lax.—Syr. (23:100),
 2–4 cc. (30–60 M).

Violette-Fehling's Solution—Test for Dextrose

(a) 34.64 Gm. cryst. CuSO_4 , & W. to make
 500 cc.; (b) 200 Gm. Rochelle salt, 130 Gm.
 NaOH, & W. to make 500 cc.—Before use mix
 eq. vols *a* & *b*. Used like Fehling's solution.

VISHA—see *Aconitum Ferox*

VITAMINE D—see *Vigantol*

Vitamines

This term was originally applied by Funk to
 substances which, when present in insufficient
 amount in, or absent from, foods, give rise to
 the so-called deficiency diseases (beri-beri, pel-
 lagra, scurvy, rickets, etc.). While the chemi-
 cal composition of these substances is not
 known with certainty, there are nevertheless
 a number of distinct types known, & indications
 point to the existence of more. The types
 referred to are: Vitamine A (fat-soluble), Vita-
 mine B (water-soluble, antineuritic), & Vitamine

C (water-soluble, antiscorbutic). Vitamine A
 is stable at 100° C., & probably at 140° C.;
 Vitamine B is stable at 100° C., & is slowly
 destroyed at 120° C.; Vitamine C is gradually
 destroyed above 50° C., & rapidly above 80°
 C. In addition to the above, there are also
 known Vitamines D & E. Vitamine D is
 fat-soluble & occurs naturally in all animal &
 vegetable fats (but most richly in cod-liver oil),
 as also in milk & butter. It is obt'd artif.,
 however, by subjecting ergosterol to the action
 of violet rays. Such "activated" ergosterol
 is powerfully antirachitic in effect, being said
 to be abt 100,000 times as effective as cod-
 liver oil. It controls the calcium & phos-
 phorus balance, & lack of it causes rickets,
 dental caries, etc. It is mkt'd in solut. in oil
 (see *Vigantol* f. uses & doses). Vitamine E
 is also fat-soluble, & occurs in cereals, green
 vegetables, & vegetable oils. It causes
 sterility in experimental animals, but its
 relation to the human economy is not yet
 definitely known. Vitamines are all destroyed
 by oxidation, temperature being an accelerating
 factor, and their specific effects are then lost or
 seriously impaired. The sources & effects of
 Vitamines A, B, & C are given in the follow-
 ing table:

	VITAMINE A	VITAMINE B	VITAMINE C
SYNONYMS	<i>Fat-Soluble A</i>	<i>Water-Soluble B</i> <i>Anti-Neuritic</i>	<i>Water-Soluble C</i> <i>Anti-Scorbutic</i>
Effect of deficiency....	Retarded growth end- ing in death Eye disease (keratoma- lacia) Probably one factor in causation of rickets	Retarded growth end- ing in death Beri-beri Polyneuritis of birds, rats, etc.	Scurvy
Chief sources.....	Animal fats Fish liver oils Green vegetables Egg-yolk Butter and milk Oleo-margarine, in pro- portion to animal fat	Seeds, particularly in the germ, pericarp and aleurone layer Yeast Egg yolk	Green vegetables (espe- cially Cruciferae) Orange and lemon juice Tomatoes Germinated seeds Swedes and turnips
Present in smaller amounts.....	Oil-seeds Carrots	Meat Milk Potatoes and some other tubers and roots Green vegetables Some fruit juices	Meat Milk Potatoes and some other tubers and roots Many fruit juices Dried vegetables
Absent from.....	Most vegetable oils Lard Margarine White bread Egg white Yeast Purified proteins and carbohydrates	White bread Polished rice Fats Egg white Purified proteins and carbohydrates	Seeds White bread Fats Yeast Purified proteins and carbohydrates

Vitellin

Ovovitellin.—A protein, cont'g some lecithin, fr. yolk of eggs (after Hoppe-Seyler).—Wh., gran. powd.—SOL.: Dil. acids, alkalies, 10% solut. NaCl; insol. W.

VITREOUS ANTIMONY—see Antimony Sulphide Vitreous

VITRIOL, GREEN, or IRON—see Iron Sulphate, Ferrous

VITRIOL, RED—see Colcothar

VITRIOL, WHITE—see Zinc Sulphate

VLEMINGCK'S SOLUTION—see Calcium Sulphide Solution; Solution Lime Sulphurated

VOLHARD'S SOLUTION—see Potassium Sulphocyanate, Solution

Voluntal

Trichlorurethane; Trichlorethanolmethane; Trichlorethylcarbaminate. — $\text{NH}_2\text{CO.NH.CO.OCH}_2\text{CCl}_3 = 235.44$.—White needles.—SOL.: Eas. hot, diffc. cold, W.—MELT.: $64^\circ\text{--}65^\circ\text{C}$.—ACTION: Hypnotic; Sedat.—USES: Insomnia, neurasthenia, hysteria, nausea, etc.—DOSE: In mild cases, 0.5–1 Gm. ($7\frac{1}{2}$ –15 grn.), & in severe cases up to 2 Gm. (30 grn.); as sedat., 0.25 Gm. (4 grn.) 2–3 t.p.d.

VOMIT NUT—see Nux Vomica

VOMIT WORT—see Lobelia

Vuzin Dihydrochloride

Isoctylhydrocupreine Dihydrochloride.— $\text{C}_{19}\text{H}_{23}\text{ON}_2\text{O.C}_8\text{H}_{17}.2\text{HCl} + 2\text{H}_2\text{O} = 533.44$.—Colorl., cryst. powd.—SOL.: Eas. warm W., A., C.; diffc. B., E.—ACTION: Powerful Bactericide.—USES: Disinfecting & sterilizing deep cavities (gunshot wounds and shattered bones or joints where disinfection ordinarily difficult or impossible), & accidental wounds, bacterial affections such as boils, abscesses, furuncles, carbuncles, phlegmons, etc. Also in pyemia following pneumonia, in meningitis, & in gonorrheal arthritis.—APPLIC.: In deep cavities, a 1:10000 solut. injected or sprayed into cavity, & the wound then sewn up. In boils, abscesses, etc., the solut. is applied after incision. In pyemia following pneumonia, 50–80 cc. (12–20 fl. dr.) of 1:500 solut. are injected directly into pleural cavity. In meningitis, intralumbar injections of 10 cc. ($2\frac{1}{2}$ fl. dr.) of a 1:500–1000 solut. In gonorrheal arthritis, washing first with a 1:5000 solut., & then injecting 20 cc. (5 fl. dr.) of the solut. into the affected joint.—NOTE: Solutions should not be made with physiological salt solution, nor should any alkaline substance be added to them. Solutions may be sterilized by boiling. Dilute solutions should be freshly made.

W

WAD—see Graphite

WAHOO—see Euonymus

WASHING SODA—see Sodium Carbonate, Technical

Water Ammonia Merck—Reagent—28%

$\text{NH}_3 = 17.03 + \text{aq.}$ —Clear, colorl. liq.—SP. GR.: Abt 0.90.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Carbonate.....	0.005%
Chloride (Cl).....	0.0001%
Phosphate (P_2O_5).....	0.001%
Sulphate (total Sulphur as SO_3).....	0.0003%
Calcium & Magnesium (Ca, Mg).....	0.003%
Heavy Metals.....	0.000%
Pyridine & other Tar Bases...	Trace
Substes Reduc'g KMnO_4	0.000%

USES: Alkalinizing agent; group precipitant; solvent in analysis; organ. synthesis.—CAUT.: Handle w. care; keep fr. the eyes.

Water Ammonia Merck—C.P., 28%

Stronger Ammonia Water.— $\text{NH}_3 = 17.03 + \text{aq.}$ —Clear, colorl. liq.—SP. GR.: Abt 0.90 = 26°Bé .

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.015%
Carbonate.....	0.020%
Chloride (Cl).....	0.000%

Phosphate (P_2O_5).....	0.001%
Sulphate (total Sulphur as SO_3).....	0.001%
Calcium & Magnesium (Ca, Mg).....	0.003%
Heavy Metals.....	0.000%
Pyridine & other Tar Bases...	Trace
Substes Reduc'g KMnO_4	0.000%

USES: As of the Reagent, above.

Water Ammonia Merck—Stronger, 28% (= 26°Bé), U.S.P. X

Colorl. liq.; intense, pung., suffoc. odor; acid taste; strong alkaline react.—SP. GR.: Abt 0.897 at 25°C .—(The strong solut. of the B.P. cont. 32.5% NH_3 , & has a sp. gr. of 0.888 at 15.5°C).—MISC.: All prop., W., A.—USES: Pharm., chem., & techn.—ANTID.: *Extern.*, wash w. plenty water then w. vinegar; *intern.*, vinegar or juice of lemon, grapefruit, or orange, copiously, followed by olive oil; *eyes*, wash w. 5% solut. boric acid.—INCOMP.: Great danger in mixing ammonia w. H_2SO_4 or o. strong mineral acids, as they inst'ly become boiling hot. Avoid I, Cl water, alkaloids, acids, mercurials, & most metallic salts.—CAUT.: Keep cool, in strong, glass-stop. bot., not completely filled.

do. Merck— $17^\circ\text{--}20^\circ\text{Bé}$

do. Merck— 10° (= 16°Bé), U.S.P. X

Aqua, or Liqueur, Ammoniae; "Spirit of Hartshorn."— $\text{NH}_3 = 17.03$.—Colorl., liq.; v. pungent odor.—SP. GR.: Abt 0.958 at 25°C .

U.S.P.; 0.959 at 15.5° C., B.P.—**ACTION:** Stim.; Antacid; Rubefac.; Antiprur.—**USES:** *Intern.*, stimulant in syncope, heartburn, sick headache, poisoning, &c.; *hypoderm.*, f. snake bites, collapse in typhoid, &c.—*Extern.*, by inhal. in fainting, in combination w. phenol in coryza, as antidote in poison. by Cl gas; as wash & compress in stings of poisonous insects; chiefly as rubefac. in rheumat. & neural. in liniment (1–5:10 lanum, oil, or other fat).—*Techn.*, as detergent, removing spots & stains, bleaching, calico printing, manuf. lakes & dyes, extracting plant colors (cochineal, archil, &c.), manuf. snuff, tobacco; saponif. fats & oils.—**DOSE:** 0.6–2 cc. (10–30 M); aver. dose, 1 cc. (15 M); intraven., 2–4 cc. (30–60 M) slowly injected; subcut., 0.12–0.3 cc. (2–5 M).—**ANTID.** *Extern.*, wash w. plenty water then w. vinegar; *intern.*, vinegar or juice of lemon, grapefruit, or orange, copiously, followed by olive oil; eyes, wash w. 5% solut. boric acid.

Water Bitter Almond—Distilled

0.1% HCN.—**ACTION:** Anod.; Sed.; Antispasm.—**USES:** Chiefly as vehicle; also in asthma, whoop-cough, bronchitis, laryngitis, spasm of glottis, angina pectoris, chorea, epilepsy, gastralgia, & dyspnea.—*Extern.*, in collyria.—**DOSE:** 0.6–1.3 cc. (10–20 M).—**Max. D.:** 2 cc. (30 M) single; 6 cc. (90 M) p.d.—**NOTE:** The U.S.P. prep. is a 1:1000 solut. of oil bitter almond in W.

WATER BLUE—see Soluble Blue

WATER BUGLE—see Lycopus

Water Cherry-Laurel Merck

Water distilled w. fresh lvs *Prunus Laurocerasus*.—0.1% HCN.—Turbid liq.; odor of HCN.—**ACTION:** Anod.; Sed.; Antispasm.—**USES:** Chiefly as vehicle; also in whoop-cough, asthm. affect., dyspnea, &c.—**DOSE:** 0.6–1.3 cc. (10–20 M).—**Max. D.:** 2 cc. (30 M) single; 6 cc. (90 M) p.d.

WATER ELDER—see *Viburnum Opulus*

WATER FLAG—see Iris

WATER GERMANDER—see Germander

WATER-GLASS—see Potassium, or Sodium, Silicate

WATER PEPPER—see Polygonum

WATERPROOFING SALTS—see Aluminum Acetate

WATER-SHAMROCK—see Menyanthes

WATER SMARTWEED—see Polygonum

WATTLE BARK—see Acacia Bark

Wax—White—U.S.P. X; B.P.

Bleached Beeswax.—Bleached yellow wax.—Brittle, yellowish-wh. solid; faint, charact. odor; insipid taste.—**SOL.:** C., E.; oils; partially in cold B., CS₂, or boil. A.; completely sol. in B. or CS₂ at abt 30° C.; insol. W. sparingly in cold A.—**MELT.:** 62°–65° C.—**SP. GR.:** 0.950–0.960 at 25° C., U.S.P.; 0.958–0.970 at 15.5° C., B.P.—**CONSTIT.:** Cerin (cerotic acid abt 15%, B.P.C.); melissic acid; ceryl A.; myricin (abt 80%, B.P.C.).—**USES:** Oint., cerates, plasters, &c.—*Techn.*, wax paper, candles, shoe polishes, chewing gum, transparent paper,

sizing & finishing textiles, modeling artif. fruits & flowers, & in process engraving.

do. Yellow—U.S.P. X; B.P.

Beeswax.—Solid substance obt. by melting & purifying the honeycomb of the bee, *Apis mellifica*, L., *Apidae*.—Yellowish to brownish-yellow solid, soft or brittle substce; agre. honeylike odor; faint, balsamic taste.—**MELT.:** 62°–65° C.—**SP. GR.:** 0.950–0.960 at 25° C., U.S.P.; 0.958–0.970 at 15.5° C., B.P.—**SOL.:** E., C., oils; part. in cold B. or CS₂; complet. sol. in B. or CS₂ at 25°–30° C.; spar. in cold A.; part. in boil. A.; insol. W.—**USES:** As of wh. wax.

WAX BERRY—see Bayberry Bark

WAX, BRAZIL—see Carnauba Wax

WAX, EARTH—see Ceresin, White

WAX, INSECT—see Chinese Wax

Wax, Japan

Vegetable Wax; Sumach Wax; Japan Tallow.—A fat expressed fr. mesocarp of the fruit of *Rhus succedanea*, L., *Anacardiaceæ*.—**HABIT.:** Japan & China.—Pale-yellow, flat cakes, disks, or squares, w. a greasy feel; somewh. tallow-like, rancid odor & taste.—**MELT.:** 53.5°–55° C.—**SP. GR.:** 0.97–0.98 at 15° C.—**SOL.:** B., CS₂, petroleum ether, E., hot A., & alk. solut.; insol. cold A., W.—**CONSTIT.:** As glycerides, palmitin (chiefly); 9%–13% palmitic acid; 1% jpanic acid & homologues; stearin; arachin.—**USES:** *Techn.*, as a substit. f. beeswax; wax varnishes; candles; & as ingred. in plasters, ointments; waxing floors; furniture polish, &c.

WAX, LIGNITE—see Montan Wax

WAX, MINERAL—see Ceresin, White

WAX, MYRTLE—see Bayberry Bark

Wayne's Solution—Test for Dextrose (Glucose)

To solut. 10 Gm. cryst. CuSO₄ in 50 cc. W., add 325 cc. solut. KOH (Sp. Gr. 1.14 = abt 16.3% by wt), then add W. to 1,000 cc.—**USES:** Like Fehling's solut.

Weigert's Acid Fuchsin—For Staining Bacteria

2% solut. acid fuchsin (Rubin S) in 15% A.

do. Hematoxylin—Nos. 1 & 2

No. 1: 1 Gm. hematoxylin & 10 cc. A., mixed w. solut. 0.012 Gm. lithium carbonate in 90 cc. W.—No. 2: (a) solut. 0.08 lithium carbonate in 100 cc. W.; (b) solut. 1 Gm. hematoxylin in 10 cc. A. For use 1 vol. b is mixed w. 9 vol. a.—**USES:** Staining marrow-containing nerve fibers.

Weingärtner's Solution—Test for Coal-tar Dyes

Solut. 10 Gm. tannin & 10 Gm. sod. acetate in 100 cc. W.—**USES:** Differentiating acid & basic coal-tar dyes; affords a ppt. w. basic, but not with acid, dyes.

Welman's Solution—Test for Vegetable Oils

5% aqu. solut. sodium phosphomolybdate acidul. w. HNO₃.—Solut. gives w. most vegetable oils dissolved in C. a green color changed to blue by NH₄OH.

Wernerite—Mineral

Common Scapolite.—OCCUR.: Finland; Norway; Bavaria; Siberia; U. S.; Canada.—COMPOS.: $(\text{Si}_3\text{O}_8)_3\text{Al}_2(\text{AlCl})\text{Na}_4$ w. $(\text{Si}_2\text{AlO}_8)_3\text{Al}_2(\text{AlO})\text{Ca}_4$.—CRYST. SYST.: Tetrag. pyram. hemih.—LUSTER: Vit. to dull.—COLOR: Wh., gray, lilac, greenish.—STREAK: Wh.—CLEAV.: Poor to good.—Brittle; transl. to opaque.—HARDN.: 5–6.—SP. GR.: 2.66–2.73.

WESTROSOL—see Trichlorethylene

WHITE AGARIC—see Agaric

"WHITE ANTIMONY OXIDE"—see Potassium Antimonate

WHITE ARSENIC—see Arsenic Trioxide

WHITE ASH—see Fraxinus

WHITE BIRCH, EUROPEAN—see Betula

WHITE BOLE—see Kaolin

WHITE CEDAR, FALSE—see Thuja

WHITE CINNAMON—see Canella

WHITE DOGWOOD—see Piscidia

WHITE FLAG—see Orris

WHITE INDIAN HEMP—see Asclepias Incarnata

WHITE LEAD—see Lead Carbonate

WHITE MINERAL OIL—see Petrolatum, Liquid

WHITE OAK—see Quercus

WHITE PRECIPITATE—see Mercury, Ammoniated

WHITE SAUNDERS—see Sandalwood, White

WHITE VERATRUM—see Hellebore, White

WHITE VITRIOL—see Zinc Sulphate

WHITE WALNUT—see Juglans

WHITE WOOD—see Tilia

WHITE WOOD, BAHAMA—see Canella

WHITING—see Calcium Carbonate

WHORE-HOUSE TEA—see Ephedra

Wickersheimer's Solution

12 Gm. KNO_3 , 25 Gm. NaCl , 60 Gm. K_2CO_3 , 100 Gm. potass. alum, 10 Gm. As_2O_3 , & hot W. 3000 cc.; when cool, filter, & to ea. 1000 cc. add 400 cc. G. & 100 cc. methyl A.—USES: Preserv. anatom. & histological specimens.

Wiesner's Solution—Test for Lignin

0.5% alcoh. solut. phloroglucin.—USES: Detect. wood fiber in paper; on moistening latter w. test solut. followed by conc. HCl a fuchsine-red color develops if lignin present.

WIGGER'S ANESTHETIC ETHER—see Ethyl Chloride Hydrochlorated

Wij's Solution—For Determining I-No.

Diss. 13 Gm. I in 1000 cc. 95% acetic acid, & pass in Cl gas free fr. HCl until titer of solut. has been doubled. Solut. quite stable, & its titer changes but little.

WILD BERGAMOT—see Monarda

WILD BRIER—see Rose, Dog

WILD CANILLA—see Canella

WILD CHAMOMILES—see Matricaria

Wild Cherry—U.S.P. X; B.P.

Choke Cherry.—Dried stem bark of *Prunus serotina*, Ehrhart, Rosaceæ, collected in autumn.—HABIT.: North America.—CONSTIT.: Tannin; prunasin; emulsin; benzoic acid; bitter principle; resin.—ACTION: Tonic; Febrif.; Pectoral; Sedat.—USES: Bronchitis, general or local irrit., debil., scrof., tubercul., &c.—DOSE: 2–4 Gm. (30–60 grn.); aver. dose, 2 Gm. (30 grn.); given in powd., fl'dextr., or infus.

WILD CINNAMON—see Canella

WILD COTTON—see Asclepias Syriaca

WILD GINGER—see Asarum

WILD HOP—see Betony

WILD HYSSOP—see Verbena

WILD INDIGO—see Baptisia

WILD IPECAC—see Apocynum Androsæmifolium

WILD LETTUCE—see Lactuca

WILD LIC(QU)ORICE—see Abrus

WILD MARJORAM—see Origanum

WILD PEPPER—see Mezereum

WILD SAFFRON—see Colchicum Corm

WILD TOBACCO—see Lobelia

WILD WOODBINE—see Gelsemium

WILD YAM—see Dioscorea

Willow—B.P.C.

Bark of *Salix Alba*, L. & o. spec. *Salix*, Salicaceæ.—CONSTIT.: Tannin (up to 13%), salicin.—ACTION: Tonic Bitter; Astring.

do. Black—B.P.C.

Swamp Willow; Pussy Willow.—Bark of *Salix nigra*, Marsh (fr. *S. discolor*, Muhl, B.P.C.), Salicaceæ.—HABIT.: Canada; U. S. north of Florida.—CONSTIT.: Salicin; salinigrin (abt 1%); tannin (3.3%–4.3%).—ACTION: Sexual Sedat.; Tonic; Antiper.; Astring.—USES: Gonorr., spermator., ovarialgia, dyspep., rheum., &c.—Extern., as appl. to ulcers.—DOSE: 3–6 Gm. (45–90 grn.).—Liq. Extr., 1–4 cc. (15–60 M).

Wilson's Solution—For Determining Hardness of Water

0.215 Gm. cryst. CaCO_3 diss. in dil. HCl , & made up w. distil. W. to 1 liter.—USES: Standardizing soap solut. f. water anal.

WIND FLOWER—see Pulsatilla

WINE ETHER—see Ethyl Pelargonate

WINTER BLOOM—see Hamamelis

WINTER CHERRY—see Alkekengi

WINTER ROSE—see Hellebore, Black

WINTERGREEN—see Gaultheria

WINTERGREEN, BITTER—see *Chimaphila*

WITCH HAZEL—see *Hamamelis*

Witherite—Mineral

OCCUR.: Cumberland; Northumberland; Silesia; U. S.—COMPOS.: BaCO_3 .—CRYST. SYST.: Rhomb.—LUSTER: Greasy vitr.—COLOR: Yellowish, grayish, or wh.—STREAK: Wh.—FRACT.: Uneven to subconch.—Transluc.—HARDN.: 3–3.75.—SP. GR.: 4.27–4.35.—USES: Source of Ba comp'ds.

Wolesky's Solution—Test for Lignin

1 Gm. diphenylamine, 50 cc. A., 5–6 cc. conc. HCl.—Gives an orange-red spot when applied to paper cont'g lignin; spot partic. distinct on drying.

WOLFRAM—see Tungsten; Wolframite

“WOLFRAM WHITE”—see Barium Tungstate

Wolframite—Mineral

Wolfram.—OCCUR.: U. S.; Bolivia; Japan; China; Burma; Spain.—COMPOS.: WO_4Fe w. WO_4Mn ; abt 76% WO_3 .—CRYST. SYST.: Monosym.—LUSTER: Submetallic.—COLOR: Black or dark-gray.—STREAK: Dark-brown to black.—CLEAV.: Perfect brachy-pinacoidal.—FRACT.: Uneven; brittle.—HARDN.: 5–5.5.—SP. GR.: 7.2–7.5.—USES: Most important tungsten ore; manuf. tungsten compds & tungsten steel.

WOLF'S BANE—see *Arnica*

WOLFSBANE—see *Aconite*

WOOD BETONY—see *Betony*

WOOD GARLIC—see *Germander*

WOOD NAPHTHA—see Alcohol Methylic

WOOD OIL—see Balsam Gurjun

WOOD-SOUR—see Barberry Bark

WOOD SPIRIT—see Alcohol Methylic

WOOD VINEGAR—see Acid Pyroligneous

WOODBINE, WILD—see Gelsemium

WOODY NIGHTSHADE—see *Dulcamara*

WOOL FAT—see Lanum, Anhydrous

WOOL MORDANT—see Chromium Sulphate, Techn.

WOORALI, or WOORARI—see Curare

WORMGRASS—see *Spigelia*

WORMWOOD—see *Absinthium*

WORMWOOD SAGE—see *Artemisia Frigida*

WOURALI—see Curare

WRIGHTINE—see Conessine

Wulfenite—Mineral

OCCUR.: Bleiberg; Carinthia; Tyrol; Nevada & Arizona, U. S.; Mexico.—COMPOS.: PbMoO_4 .—CRYST. SYST.: Tetrag. pyram. hem.—LUSTER: Resin. to adamantine.—COLOR: Bright-red to orange, sometimes brown, grayish, wh. or nearly colorl.—STREAK: Wh.—FRACT.: Subconch.; brittle; fragile.—HARDN.: 2.75–3.—SP. GR.: 6.7–7.—USES: Second largest source of molybdenum comp'ds; important lead ore.

WURSTER'S OZONE PAPER (BLUE)—see Tetramethylparaphenylenediamine Paper

WURSTER'S REAGENT—see Tetramethylparaphenylenediamine

WYCHHAZEL—see *Hamamelis*

X

XANTHANOL—see Xanthhydrol

Xanthine

2,6 Dioxypurine; Ureous Acid.— $\text{C}_5\text{H}_4\text{N}_4\text{O}_2 = 152.09$.—Diureid obt'd fr. guanine, by HNO_2 ; occurs naturally in the animal body.—Yellowish-wh. powd.—SOL.: Strong acids & in alk. solut.; sltly in hot W.—Decomp. when heated above 150°C .—ACTION: Sltly Diuret.

Xanthone

Carbonyldiphenyl Oxide; Benzophenone Oxide; Diphenylketone Oxide.— $\text{CO}:(\text{C}_6\text{H}_5)_2\text{O} = 196.13$.—Fr. salicylic acid & acetic anhydride by boil.—Wh., woolly, cryst. needles.—SOL.: Sltly cold A., B., E., more eas. hot A.; eas. C.; alm. insol. W.—MELT.: Abt 174°C .

Xanthoxylum (Concentration)

Purified alcoh. extr. of prickly-ash bark (*Xanthoxylum*, var. species).—Brown powd.—SOL.: A.—ACTION: Stim.; Diaph.—USES: Chronic rheum.—DOSE: 0.06–0.12 Gm. (1–2 grn.).

Xanthoxylum—N.F. V; B.P.C.

Prickly Ash; Toothache Tree; Yellow Wood; Angelica Tree.—Dried bark (& berries) of *Xanthoxylum americanum* Miller (Northern Prickly Ash), or of *X. Clava-Herculis*, L. (Southern Prickly Ash), Rutaceae.—HABIT.: Canada, south to Virginia & Missouri.—CONSTIT.: Resins; xanthoxylene (probably an alkaloid); acrid volat. oil; tannin; sugar.—ACTION: Mild Diaph.; Alter.; Stim.; Counter-irrit.—USES: Syph., neural., muscul. pains, & pelvic diseases.—DOSES: Bark: 1–4 Gm. (15–60 grn.); aver. dose, 2 Gm. (30 grn.).—Extr., 0.3–0.6 Gm. (5–10 grn.).—Fl'dextr., 1–4 cc. (15–60 M).—Berries: Aver. dose 1 Gm. (15 grn.).—Fl'dextr., 1.3–2.6 cc. (20–40 M).

Xanthhydrol

Xanthanol; Diphenopyranol.— $\text{O}:(\text{C}_6\text{H}_5)_2\text{CHOH} = 198.15$.—Fr. xanthone & NaOH in A. by Zn dust.—Wh., cryst. powd.—SOL.: A., C.; also boil. ligroin but is then converted into its ethers; v. sltly W.—MELT.: $122^\circ\text{--}124^\circ\text{C}$.—USES: Determ. urea in urine.

XAXAQUIN—see Quinine Acetylsalicylate

Xenotime—Mineral

Ytterspath.—OCCUR.: Ytterby, Sweden; So. Wales; Switzerland; Norway; Hitterö.—COMPOS.: Phosphate of the earths of the yttrium group w. admixed earths of the cerium group.—CRYST. SYST.: Tetrag.—LUSTER: Resinous to vitr.—COLOR: Yellowish-brown, reddish-brown, grayish-red, pink, wine-yellow.—CLEAV.: Perfect.—FRACT.: Uneven, splintery; brittle.—HARDN.: 4–5.—SP. GR.: 4.45–4.56.—USES: Source of yttria.

X-RAY MEAL, PREPARED—see Skiabaryt, Oral

Xylene Merck—C.P.

Xylol; Dimethylbenzene.— $C_6H_4(CH_3)_2$ = 106.12.—MIXT. of xylenes (chiefly meta) fr. coal tar.—COLORL., mobile liq.—SOL.: Eas. A., E.—BOIL.: 137°–140° C.—SP. GR.: Abt 0.85.

MAXIMUM OF IMPURITIES

Nonvol. Matter.....	0.005%
Acid.....	None
Water.....	None
Readily Carbonizable Substcs..	Trace

USES: As solvent.

do. Merck—Free fr. Water & Acid

DESCRIPT., SOL., &C.: As of preced'g.—ACTION: Antisept.—USES: *Intern.*, variola, typhoid, respiratory troubles, & dyspep.—*Extern.*, scabies, herpes tonsurans, ecz., etc.—*Techn.*, as solvent, f. sterilizing catgut, & manuf. azo-dyes.—DOSE: 0.3–1 cc. (5–15 M) in caps.; in variola, 40–70 drops in mild, & 90–120 drops in severe, cases, p.d., f. adults, & 20 drops p. d. f. childr.—MAX. D.: 3 cc. (45 M) p.d.

m-Xylene

Metaxylene; Metadimethylbenzene; Isoxylene.— $C_6H_4(CH_3)_2[1:3]$ = 106.12.—COLORL. liq.—SOL.: Eas. A., E.—SP. GR.: 0.870 at 15° C.—BOIL.: 139° C.—USES: *Techn.*, manuf. xyldines; lacquers & varnishes; as solvent; remov'g naphthalene fr. illuminating gas & fr. gas pipes; manuf. artif. musk; in microscopy.

o-Xylene

Orthoxylene; Orthodimethylbenzene.— $C_6H_4(CH_3)_2[1:2]$ = 106.12.—COLORL. liq.—SOL.: Eas.

A., E.—SP. GR.: 0.870 at 15° C.—BOIL.: 141°–143° C.—USES: As of m-xylene.

p-Xylene

Paraxylene; Paradimethylbenzene.— $C_6H_4(CH_3)_2[1:4]$ = 106.12.—COLORL. liq.; fluid above 15° C.—SOL.: A., E.—SP. GR.: 0.862 at 20° C.—BOIL.: 138° C.—USES: As of m-xylene.

m-Xylenol

Metaxylenol; Dimethylphenol [1:3:4].— $C_6H_3CH_3.CH_3.OH[1:3:4]$ = 122.12.—Fr. potassium m-xylenesulphonate & KOH by fus.—COLORL. to reddish-brown liq.—MISC.: Eas. A., E.—BOIL.: 211° C.

o-Xylenol

Dimethylphenol [1:2:4].— $C_6H_3.CH_3.CH_3.OH[1:2:4]$ = 122.12.—Fr. o-xylenesulphonic acid & KOH by fus.—COLORL. to reddish cryst.—SOL.: W., A.—MELT.: 63° C.—BOIL.: 225° C.

p-Xylenol

Dimethylphenol [1:4:2].— $C_6H_3.CH_3.CH_3.OH[1:4:2]$ = 122.12.—Fr. p-xylenesulphonic acid & KOH by fus.—WH. to reddish cryst.—SOL.: A., E.; sltly W.—MELT.: 74° C.—BOIL.: 211° C.

p-XYLENOL BLUE—see p-Xylenolsulphonphthalein

p-Xylenolsulphonphthalein

p-Xylenol Blue; 1.4.Dimethyl-5.oxybenzenesulphonphthalein.—USES: As indic. (possesses sev'l advantages over thymol blue).—PH = red 1.2–2.8 yellow; yellow 8.0–9.6 blue.

m-Xyldine—Asymmetric

4.Amino-1.3.xylene; Ordinary Metaxyldine.— $C_6H_3(CH_3)_2NH_2[1:3:4]$ = 121.14.—Brown liq.—SOL.: Eas. A., E.; v. sltly W.—SP. GR.: 0.918 at 15° C.—BOIL.: 212° C.

o-Xyldine

3.Amino-1.2.dimethylbenzene; Aminoxylene.— $C_6H_3(CH_3)_2(NH_2)[1:2:3]$ = 121.14.—Fr. nitroxylylene by acetic acid & Fe filings.—Yellow liq.; prone to darken in air & light.—SOL.: Eas. A., E.—BOIL.: Abt 215° C.—USES: *Techn.*, in manuf. azo-dyes.

XYLOIDIN—see Pyroxylin

XYLOL—see Xylene

Y

YARA-YARA—see Nerolin

YARROW—see Achillea

YAW ROOT—see Stillingia

Yeast—Dry

Saccharomyces Cerevisiæ.—Yeast in form of dry powd.; slt taste & odor; 5 to 7 times more concentrated than the usual compressed yeast.—USES: Skin diseases (acne, boils, carbuncles, pruritus erythema, etc.), digestive disorders,

habitual constipation, so-called deficiency diseases.—DOSE: 1–4 Gm. (15–60 grn.), equivalent to $\frac{1}{2}$ –2 ordin. yeast cakes, 1–3 t.p.d.

do. —Liquid—B.P.C.

Ferment obt'd in brewing beer.—Viscid liq., or soft mass; consists of the cells & spores of Saccharomyces Cerevisiæ.—CONSTIT.: Zymase, emulsin, nuclein.—USES: As of preced'g.—DOSE: 30–500 cc. (1–16 fl. oz.) liq.; 4–12 Gm. (1–3 dr.) solid.

Yeastone

Cerolin.—Purif. conc. extract of yeast, cont'g the active principles of yeast, lecithin, cholesterol, salts of fatty acids, etc.—USES: Skin diseases, acne, furunculosis, eczema, carbuncles, scurvy, malnutrition, neurasthenia; to increase body resistance toward infection; as source of vitamins for the expectant & nursing mother; habitual constipation, autointoxication, etc.—DOSE: 1–3 pills (as mkt'd) 3 t.p.d.

YELLOW ARSENIC—see Arsenic Sulphide, Yellow

YELLOW, CADMIUM—see Cadmium Sulphide, Yellow

YELLOW CEDAR—see Thuja

YELLOW, CHROME—see Lead Chromate

YELLOW CINCHONA BARK—see Cinchona

YELLOW, COLOGNE—see Lead Chromate

YELLOW DOCK—see Rumex

YELLOW GENTIAN—see Gentian

YELLOW INDIGO—see Baptisia

YELLOW JASMINE, OR JESSAMINE—see Gelsemium

YELLOW, KING'S- }
YELLOW, LEIPZIG- } see Lead Chromate
YELLOW, LEMON- }

YELLOW MELILOT—see Melilot

YELLOW MOCCASIN FLOWER—see Cypripedium

YELLOW MUSTARD—see Mustard, White

YELLOW, NEW- }
YELLOW, PARIS- } see Lead Chromate

YELLOW POTASSIUM CHROMATE—see Potassium Chromate

YELLOW PRECIPITATE—see Mercury Oxide, Yellow

YELLOW PRUSSATE OF POTASH—see Potassium Ferrocyanide

YELLOW PUCCOON—see Hydrastis

YELLOW RESIN—see Rosin

YELLOW ROOT—see Hydrastis

YELLOW SAUNDERS—see Sandalwood, White

YELLOW SWEET CLOVER—see Melilot

Yellow T

Resorcinol Yellow; Tropaeoline O; Tropaeoline R; Chrysoine; Chryseoline; Gold Yellow; Acme Yellow.— $C_{12}H_9N_2O_5SNa = 316.21$.—Sod. salt of azoresorcinolsulphanilic acid.—Brown powd. SOL.: A., W. w. reddish-yellow color.—USES: Dyes wool & silk reddish-yellow in acid bath.

"YELLOW URANIUM OXIDE"—see Sodium Uranate

YELLOW WOOD—see Liriodendron; Xanthoxylum

YENITE—see Lievrite

YERBA MATÉ—see Maté

YERBA REUMA—see Frankenia

YERBA SANTA—see Eriodictyon

Yohimbé—B.P.C.

Yohimbé. —Bark of *Corynanthe Yohimbé*, K. Schumann (*Pausinystalia Yohimba* [K. Sch.] Pierre, B.P.C.), Rubiaceae.—HABIT.: Cameroon district near Kribi; French Congo.—CONSTIT.: Yohimbine (corynine); corynanthine (yohimbenine); mesocorynine (mesoyohimbine).—ACTION: Aphrodisiac.

YOHIMBÉHÉ—see Yohimbé

Yohimbine Hydrochloride

Corynine Hydrochloride (B.P.C.); Aphrodine Hydrochloride.— $C_{23}H_{32}N_2O_4 \cdot HCl = 436.86$.—The hydrochloride of an alkaloid fr. bark of Yohimbé (*Corynanthe Yohimbé*).—Colorl. cryst.—SOL.: W.—ACTION: Aphrodis. —USES: Impotence, partic. in neurasthenic forms; also in toxic impotence following excessive use of Hg, & in impotence fr. sexual excess; also to produce conjunctival & corneal anesth. (2% solut. w. adrenalin instilled in conjunctival cul de sac), & f. nose & throat anesth.—DOSE: 0.006 Gm. ($\frac{1}{10}$ grn.) = 1.3 cc. (20 M) of a 0.5% aqu. solut., 3 t.p.d.—Also used in VETER MED. as an aphrodisiac, being given 3–6 t.p.d. in the following doses: *Horses & cattle*, 0.05 Gm. ($\frac{3}{4}$ grn.); *pigs*, 0.01 Gm. ($\frac{1}{2}$ grn.); *sheep & goats*, 0.01 Gm. ($\frac{1}{2}$ grn.); *dogs*, accord. to wt., 0.00025–0.0025 Gm. ($\frac{1}{240}$ – $\frac{1}{24}$ grn.). In paralysis, the doses stated are given 6–10 t.p.d.

YOUTHWORT—see Drosera

YTTERSPATH—see Xenotime

YTTRIA—see Yttrium Oxide, Anhydrous

Yttrium

Yt = 89.33; disc. in 1882 by Cleve.—Yttrium occurs in xenotime, samarskite, gadolinite & o. rare minerals.—Dark-gray powd.; usually cont's a little erbium; oxidizes when heated in air or O.—SOL.: Eas. dil. acids; sltly conc. H_2SO_4 .—SP. GR.: 3.8.—MELT.: $1490^\circ C$.

Yttrium Bromide

$YtBr_3 + 9H_2O = 491.23$.—Colorl., deliquescent. —SOL.: Eas. W., less eas. A.; insol. E.

Yttrium Carbonate

$Yt_2(CO_3)_3 + 3H_2O = 412.72$.—Reddish-wh. to wh. powd.—SOL.: Dil. mineral acids; insol. W.

Yttrium Chloride

$YtCl_3 + 6H_2O = 303.81$.—Reddish-wh., transp. deliq. cryst.—SOL.: v. eas. W.; more diffic. A.—MELT.: $160^\circ C$. when anhydrous.—CAUT.: Keep well stoppered.

Yttrium Nitrate

$Yt(NO_3)_3 + 6H_2O = 383.45$.—Reddish-wh. cryst.—SOL.: v. eas. W., A.

Yttrium Oxide—Anhydrous

Yttria.— $\text{Yt}_2\text{O}_3 = 226.66$.—Yellowish-wh. powd.
—SOL.: Eas. in dil. mineral acids; insol. W.—
Usually cont. sm. amt erbium.

Yttrium Sulphate

$\text{Yt}_2(\text{SO}_4)_3 + 8\text{H}_2\text{O} = 610.97$.—Sm. reddish-wh.,
monosymmetr. cryst.—SOL.: Diffic. in W.

YTTROTANTALITE—see Fergusonite

YTTROTITANITE—see Keilhauite

Z**Zea—N.F. V**

Corn-Silk.—Fresh styles & stigmas of Zea
Mays, L., Gramineæ.—HABIT.: Found every-
where.—CONSTIT.: Maizenic acid; fixed oil;
resin; mucilage.—ACTION: Diur.; Demulc.;
Lithontriptic; Alter.—USES: Dis. of the genito-
urin. organs & bladder (cystitis, gravel, dropsy,
gonorr., incont. urine, &c.).—DOSE: 2–8 Gm.
(30–120 grn.) us'y as fl'dextr.; aver. dose, 4
Gm. (1 dr.).

Zedoary—N.F. V

Dried rhizome of Curcuma Zedoaria, Roscoe,
Zingiberaceæ.—HABIT.: East Indies.—CON-
STIT.: Resin; volat. oil; starch; mucilage.—
USES: Stomachic (like ginger) in dyspep. &
flatul.—DOSE: 0.6–2 Gm. (10–30 grn.); aver.
dose, 1 Gm. (15 grn.).

ZIBETH—see Civet

Ziehl-Neelson's Carbol-Fuchsin

1 Gm. fuchsin & 5 Gm. phenol in 100 Gm.
10% A.—USES: Stain. tubercle bacilli, &
spores.

**Zinc Metal Merck—Reagent—Free fr. As, P, Fe,
& S—Gran. (No. 10–20 Mesh), Mossy,
Shot (formerly called Granular), or Sticks**

Zn = 65.37.—Lustrous, bluish wh. granules,
sticks, or "mossy" pieces.—SOL.: Slowly but
compl. in dil. H_2SO_4 .

MAXIMUM OF IMPURITIES

Arsenic (As).....	0.000025%
Matter Oxidizable by KMnO_4 (as Fe).....	0.0056%
Lead (Pb).....	0.010%
Sulphur & Phosphorus Comp'ds	0.0000%

USES: Partic. f. the Marsh test f. As; also in
forensic anal., partic. f. detect'g & determ'g
As; reducer in determ'g Fe, Cu, Pb, Mo, U, P,
Ir, Ni, & Co; prepar'g H; reag. f. adenin,
picric acid, iodates, chlorates, & nitrates, &
also f. Sb (Fresenius), strychnine (Malaquin),
Ni (Papasogli), & free acids (Stein); reducing
various organ. comp'ds.

do. Merck—Reagent—Dust

Fine, gray powd.; mixt. of metal Zn, ZnO, &
sm. quant. o. metals, sulphides, etc.; cont. at
least 90% Zn.

MAXIMUM OF IMPURITIES

Nitrogen (N).....	0.004%
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USES: Reducer; detect'g phenolphthalein, Hg,
 HNO_3 , mercury succinimide, strychnine.

**Zinc Merck—C.P.—Free fr. As, nearly free fr.
Fe—Mossy, Shot, Sticks, or Gran. (No.
10–20 Mesh)**

Zn = 65.37.—Lustrous, bluish wh. granules,

sticks, or "mossy" pieces.—SOL.: Slowly but
compl. in dil. H_2SO_4 .

MAXIMUM OF IMPURITIES

Arsenic (As).....	0.0002%
Matter Oxidizable by KMnO_4 (as Fe).....	0.022%
Sulphur & Phosphorus.....	0.00%

USES: As of the Reagent, above.

do. Merck—C.P.—Dust

Fine gray powd.; mixt. of metal Zn, ZnO, sul-
phides, etc., cont. at least 90% Zn.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.03%
Cadmium (Cd).....	0.003%
Iron (Fe).....	0.06%
Lead (Pb).....	0.10%

USES: As of the Reagent, Dust.

**do. Merck—Purified—Powd. (abt No.
40 Mesh), Shot (formerly called
Granular), or Thick Sticks**

Zn = 65.37.—Bluish-wh. metal w. cryst.
fracture.—SOL.: Acids.—SP. GR.: Abt 7.0.
—MELT.: 419.4°C .—BOIL.: 918°C .—Be-
comes brittle at 200°C ., & distils at $1,000^\circ \text{C}$.—
USES: Prepar. pure zinc salts, & in chem.
anal.—*Techn.*, the metal is used f. making
vessels & utensils, shot, Babbitt metal & o.
alloys; galvanizing iron, printing plates, elec-
troplating apparatus, brass & bronze, desilver-
ing lead, & making preparations of zinc.

do. Merck—Technical—Gran. or Mossy**do. Merck—Technical—Powd.**

Zinc Dust.—Mixt. powd. zinc (90%–95%) w.
ZnO, & us'y w. o. metals. First prod. of zinc
distillation.—USES: As reducer (in indigo
vats); also w. $\text{Ca}(\text{OH})_2$ f. making H to be used
f. balloons; also in paints; galvanizing iron &
steel; deoxidizing bronze; extracting gold by
the cyanide process; purifying fats for soaps;
bleaching bone glue; manuf. lithopone & sod.
hydrosulphite.

Zinc Acetate Merck—C.P.

$\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2 + 2\text{H}_2\text{O} = 219.47$.—Wh., cryst.
plates; faint acetous odor.—SOL.: Abt 3 W.,
abt 50 A.

MAXIMUM OF IMPURITIES

Chloride (Cl).....	0.001%
Sulphate (SO_3).....	0.005%
Alkalies & Earths.....	0.150%
Arsenic (As).....	0.000%
Iron (Fe).....	0.001%
Lead (Pb).....	0.000%

USES: Test'g f. albumin (Abeles), tannin

(Carpené), urobilin (Florence; Morel-Monod; Roman-Delluc; Schlesinger), H_3PO_4 (Knorre), blood (Wolff), & to clarify urine (Carrez).

do. Merck—U.S.P. X

Wh., monocl. effloresc. plates; pearly lustr.—SOL.: 2.3 W., 30 A. at 25° C., 1.6 boil'g W., & abt 1 boil'g A., U.S.P.; (0.25 boil. W., 40 cold & 3 boil. A. [90%], B.P.C.).—ACTION: Astring.; Emetic; Antisep.; Nervine.—USES: *Intern.*, inst. of the sulphate.—*Extern.*, collyrium in ophthalmia; inj. in urethritis, gonorr., & otorrhea; gargle in sore mouth or sore throat.—DOSES: 0.03–0.25 Gm. ($\frac{1}{2}$ –4 grn.) 3–4 t.p.d.; aver. dose, 0.12 Gm. (2 grn.); *emetic*, 0.6–1 Gm. (10–15 grn.).—APPL.: Eye-wash, 1-2:1,000 W.; gargle, 5-10:1,000 W.—INJ.: 2-5:1,000 W.—ANTID.: Alkali carbonates, tannin.—INCOMP. (zinc salts in general): Acacia, alkalies, arsenates, carbonates, cyanides, lime-water, oxalates, phosphates, sulphates, sulphides, veget. astring. decoct's & infusions.—CAUT.: Keep well stoppered.

do. Merck—Technical—Gran.

USES: *Techn.*, f. preserv. wood; as mordant in dyeing; also f. manuf. glazes in painting on porcelain.

ZINC ALUM—see Aluminum & Zinc Sulphate

Zinc Amalgam

USES: *Chem.*, reducing agent.—*Techn.*, electric batteries; gilding copper.

Zinc Arsenate Merck

Compos. somewh. variable; approx. $5\text{ZnO} \cdot 2\text{As}_2\text{O}_5 + 4\text{H}_2\text{O} = 938.75$.—Wh. odorl. powd.—SOL.: Acids, alkali hydroxides, NH_4OH ; insol. W.—ANTID.: Emetics, stomach siphon, fresh hydrated iron sesquioxide, dialyzed iron, demulcents, &c.—CAUT.: Poison!

Zinc Benzoate Merck

$\text{Zn}(\text{C}_7\text{H}_5\text{O}_2)_2 = 307.52$.—Wh. powd.—SOL.: W. (less sol. in hot than in cold W.).

ZINC BICHROMATE—see Zinc Dichromate

ZINC BLENDE—see Sphalerite

Zinc Borate Merck

Variable compos'n; cont'ns abt 20% W. of hydration.—Wh., odorl. powd.—SOL.: Acids; sltly W.

Zinc Bromide Merck

$\text{ZnBr}_2 = 225.21$.—Wh. v. hygros., gran. powd.; sharp, metal. taste.—SOL.: NH_4OH ; 0.25 W., 0.5 A., (90%), E.—MELT.: 394° C.—ACTION: Antiepileptic.—USES: *Intern.*, in chorea, hysteria, epilepsy, in v. dil. solut.—*Techn.*, solut. f. storage batteries.—DOSE: 0.06–0.12 Gm. (1–2 grn.).—MAX. D.: 0.6 Gm. (10 grn.) p.d.—INCOMP.: Acids; alkaloids; salts of Sb, Bi, Cu, Pb, Hg, & Ag.—CAUT.: Keep tightly stoppered in small glass-stop. vials.

ZINC, BUTTER OF—see Zinc Chloride

ZINC CARBOLATE—see Zinc Phenate

Zinc Carbonate Merck—C.P.—Precip.

Zinc Subcarbonate; Basic Zinc Carbonate.—Wh. powd.—SOL.: Dil. acids, NH_4OH ; insol. W., A.

MAXIMUM OF IMPURITIES

Chloride (Cl)	0.002%
Sulphate (SO_3)	0.030%
Alkalies (as Na_2CO_3)	0.15%
Alkalies & Earths	0.5%
Iron (Fe)	0.005%
Lead (Pb)	0.002%

do. Merck—U.S.P. IX—Precip.

Variable compos'n; approx. $2\text{ZnCO}_3 \cdot \text{Zn}(\text{OH})_2 + \text{aq}$.—Impalp., wh. powd.; yields not less than 68% ZnO on ignition, U.S.P.—SOL.: Dil. acids, NH_4OH , & solut. ammon. carb.; insol. W., A.—ACTION: Antisep.; mildly Sed.—USES: *Extern.*, pure, or in 20% oint. or powd. f. wounds, ulc., skin dis., &c.; also face powd. Also as intermediate product in making pure ZnO, & as pigment; manuf. porcelains & pottery; fireproofing materials.

Zinc Chlorate Merck

$\text{Zn}(\text{ClO}_3)_2 + 6\text{H}_2\text{O} = 340.39$.—Colorl. to yellowish-wh., v. deliq. cryst.—SOL.: 0.6 W., A.—MELT.: Abt 60° C.

Zinc Chloride Merck—Reagent—Gran.

$\text{ZnCl}_2 = 136.29$.—Wh., v. deliquesce. granules; sometimes as fused pieces or sticks.—SOL.: In less than 1 W.; readily in A.

MAXIMUM OF IMPURITIES

Nitrate (N_2O_5)	0.003%
Sulphate (SO_3)	0.005%
Alkali & Earths	0.200%
Ammonium Comp'ds (NH_3)	0.005%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%
Zinc Oxychloride (as ZnO)	1.2%

USES: Dehydrating agent; solvent f. cellulose; reag. f. cellulose (Behrens; Cross-Bevan; Schultze); minerals (Bréon), resorcinol (Carobio), alkaloids (Czumpelitz; Jorissen), Cl (Genlis), mercerized cotton (Hübner; Lange), glucose (Maumené), urobilin (Nencki-Sieber; Oliviero), silk, (Persoz), bile pigments (Stockvis), acetanilid (Strobel), cholesterin (Tschuga-jeff), embelic acid (Warden).

Zinc Chloride Merck—C.P.—Gran.

Butter of Zinc.— $\text{ZnCl}_2 = 136.29$.—Wh., gran., v. deliq. powd., or sticks.—SOL.: Less than 1 W., eas. A.—MELT.: Above 250°.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.010%
Alkali & Earths	0.350%
Ammonium Comp'ds (NH_3)	0.030%
Heavy Metals	0.000%
Zinc Oxychloride (as ZnO)	1.6%

USES: As of the Reagent, above.

Zinc Chloride Merck—C.P.—Sticks

$\text{ZnCl}_2 = 136.29$.—Wh. sticks.—SOL.: Eas. W.

MAXIMUM OF IMPURITIES

Sulphate.....	0.010%
Alkali & Earths.....	0.35%
Ammon. Comp'ds (NH_3).....	0.030%
Heavy Metals (as Pb).....	0.003%

Zinc Chloride Merck—U.S.P. X—Gran., or Fused Sticks

DESCRIPTION: As of preced'g.—SOL.: 0.25 W. & abt 1.3 A. at 25°C ., & 2 G., U.S.P., 4 G., E. With much W. zinc oxychloride ppts.—MELT.: 260°C ., U.S.P.—ACTION: Alter.; Antispasm.; Eschar.; Disinf.; Preserv.—USES: *Intern.* formerly in epilepsy, neuralg., chorea, scrof., syph., &c.—*Extern.*, caustic in nevi, cancerous affect., superabundant granul., gangr., aneurisms, &c.; collyrium in thickened & vascular conjunctiva; & inj. in gonorr.—*Techn.*, in dental cement (w. ZnO), & in microscopy f. differentiating fibers of silk, wool, & plants.—DOSE: 0.006–0.02 Gm. ($\frac{1}{10}$ – $\frac{1}{2}$ grn.); as inj. in urethra, 1:1,000 W.; f. bandag. solut., 1:100–500 W.; f. eyewash, 1:2,000 W.; inj. in tuberculous joints, 6–20 drops of solut. 1:10 W. subcut. (in quant. of 2–3 drops in sev'l places) near the affected parts; f. cancer, 50% paste w. rye flour.—Also as zinc-chloride jute, Rotter's antiseptic wash f. wounds (Rotterin), Burnett's disinfecting fluid, etc.—In VETER. MED. in 10%–20% aqu. solut. as caustic in neoplasms, cancer of the frog, ulcerations, fistulas, etc.—ANTID.: Alkali carbonates, preceding W. or milk; albumin, anodynes, stimulants, tea, &c.—CAUT.: Poison! Keep well stoppered.

do. Merck—Technical—Gran.

Antisep.; Preservative.—USES: Deodorant, disinf. & embalming material; alone or w. phenol & o. antiseptics f. preserv. wood (railway ties); fireproofing lumber; flux f. soldering (w. NH_4Cl); etching metals; manuf. paper & parchment paper; preserving anatom. specimens; petroleum oil refining; cement f. metals & f. facing stone; mordant in printing & dyeing textiles; carbonizing woollen goods; manuf. artif. silk; producing crepe & crimping fabrics; mercerizing cotton; sizing & weighting fabrics; manuf. dyes & glass; vulcanizing rubber; as catalyst in chem. processes.

Zinc Chloriodide

Mixt. of ZnCl_2 & ZnI_2 .—Wh. to yellowish-wh. powd.—SOL.: W.—USES: Disinfectant.

do. —Solution

Naegeli's Solut.—Fr. HCl w. Zn followed by satur. w. KI & I .—USES: Micro-chemical test f. cellulose (blue color), & f. tannin (reddish or violet color).

Zinc Chromate

Zinc Yellow; Buttercup Yellow.—Double salt of ZnCrO_4 & $\text{K}_2\text{Cr}_2\text{O}_7$, of not perf. definite compos'n.—Fiery yellow, odorl., v. fine powd. SOL.: Eas. acids & dil. acetic acid; sltly W.—USES: As pigment f. paints, varnishes, oil colors, linoleum, rubber, etc.

Zinc Citrate

$\text{Zn}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 2\text{H}_2\text{O} = 610.28$.—Wh., amorph. powd.—SOL.: Sltly W.—ACTION: Antiepileptic.—DOSE: 0.2–0.8 Gm. (3–12 grn.) sev'l times per day.

Zinc Cyanide Merck—Pure

$\text{Zn}(\text{CN})_2 = 117.40$.—Wh. powd.—SOL.: Solut. KCN, alkalies; insol. W. & A.—ACTION: Alter.; Antisep.; Anthelm.—USES: Chorea, rheum., nervous dis., epilepsy, hyst., cramps, gastric cancer, whoop, cough, neural., dysmenorr., colic, gastralgia, & palpitation & pain in the cardiac region. Small doses at first, & grad. incr.—*Techn.*, electroplating; purif. illumin. gas (remov'g NH_3).—DOSE: 0.006–0.015–0.06 Gm. ($\frac{1}{10}$ – $\frac{1}{4}$ –1 grn.).—ANTID.: Stomach siphon, ammonia, a mixt. of FeSO_4 & iron persulphate, Cl inhalation, cold douche, &c.—CAUT.: Poison!

Zinc Dichromate

Zinc Bichromate.— $\text{ZnCr}_2\text{O}_7 + 3\text{H}_2\text{O} = 335.42$.—Orange-yellow powd.—SOL.: Hot W., acids, & alkalies.

ZINC DIIODOPARAPHENOLSULPHONATE—see Sozoiodole-Zinc

ZINC DUST—see Zinc, Powd.

Zinc-Ethyl

$\text{Zn}(\text{C}_2\text{H}_5)_2 = 123.47$.—Colorl. liq.; takes fire on contact w. air or Cl gas; violently decomp. by W. Mkt'd in sealed glass bulbs.—SP. GR.: 1.182 at 18°C .—BOIL.: 118°C .—USES: Synthetic organic chem.—CAUT.: Very dangerous because prone to spontaneous combustion on contact w. air. Handle & keep w. extreme care!

Zinc Ethylsulphate

$\text{Zn}(\text{C}_2\text{H}_5\text{SO}_4)_2 + 2\text{H}_2\text{O} = 351.62$.—Colorl., v. hygros. leaflets.—SOL.: W., A.—CAUT.: Keep well stop'd.

Zinc Ferrocyanide

$\text{Zn}_2\text{Fe}(\text{CN})_6 = 342.66$.—Wh. powd.—SOL.: In excess alkali w. decomp.; insol. W. or dil. acids.—ACTION: Alter.; Antispasm.—USES: Dysmenorr., rheum., chorea, gastralgia, &c.—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.) sev'l t.p.d.

ZINC, FLOWERS OF—see Zinc Oxide

Zinc Fluoride

$\text{ZnF}_2 = 103.37$.—Wh. powd.—SOL.: Eas. NH_4OH ; sltly in W., but more eas. in W. cont'g HF, HCl, or HNO_3 .—USES: *Techn.*, in glazes & enamels f. porcelains & china; preserv'g wood (telegraph poles & underground work); in galvanizing baths f. metals.

Zinc Formate

$\text{Zn}(\text{CHO}_2)_2 + 2\text{H}_2\text{O} = 191.43$.—Wh. cryst.—SOL.: W.; insol. A.—ACTION: Astring.; Antisep.—USES: Gonorr., &c.

ZINC GALLATE—see Zinc Subgallate

Zinc Glycerophosphate

$\text{C}_3\text{H}_5(\text{OH})_2\text{OPO}_3\text{Zn} = 235.48$.—Wh., amorph. powd.—SOL.: W.; insol. A., E.—ACTION: Astring.; Antispasmodic.—USES: Epilepsy; also w. o. glycerophosphates in aqu. solut., as not pptd by other glycerophosphates soluble in W.—DOSE: 0.01–0.05 Gm. ($\frac{1}{8}$ – $\frac{3}{4}$ grn.) in epilepsy.

Zinc Gynocardate

Yellow, gran. powd.—SOL.: A., C., E.; & in acids w. separation of gynocardic acid.—ACTION: Antiseptic.—USES: As of gynocardic acid in psoria., lichen, pruritus, & o. skin affect.

Zinc-Hemol

Hemol w. 1% Zn in organic comb.—Dark-brown powd.—SOL.: Partly in W.—ACTION: Hematinic & Constructive; mild zinc prep., preferable to all o. Zn salts intended to be absorbed.—USES: Anemia, chlorosis, & gastric or intest. erosions.—DOSE: 0.5 Gm. (8 grn.) 3 t.p.d.

Zinc Hypophosphate Merck

$\text{Zn}(\text{H}_2\text{PO}_4)_2 + \text{H}_2\text{O} = 213.50$.—Colorl., hygrosc., cryst. powd.—SOL.: W.—ACTION: Antisept.; Astring.; Antispasm.—USES: Gastric & intest. catarrhs, chorea, whoop-cough, epilepsy, skin dis., & gonorr.—DOSE: 0.03–0.1 Gm. ($\frac{1}{2}$ – $1\frac{1}{2}$ grn.) sev'l t.p.d.

Zinc Iodate

$\text{Zn}(\text{IO}_3)_2 = 415.21 + \text{aq.}$ —Wh., cryst. powd.—SOL.: Sltly W.—USES: As of $\text{Ca}(\text{IO}_3)_2$.

Zinc Iodide Merck

$\text{ZnI}_2 = 319.21$.—Hygrosc., wh., gran. powd.; sharp, saline taste.—SOL.: Eas. W., A., & E.—MELT.: Abt 446° C., B.P.C.—BOIL.: Abt 624° C. w. some decompos'n.—ACTION: Alter.; Antisept.; Caustic.—USES: *Intern.*, scrof., chorea, hysteria, epilepsy, syph., &c.—*Extern.*, ulcer, tonsils, gonorr., &c.—As caustic, 1:2 solut.; as resolvent in scrofulous enlargements, 2–6:100 solut.; inj. in gonorr., 0.5–1:300 solut. in scroful. ophthalmia, as collyr., 1.5:1,000 solut.—Used also in making ZnI_2 -starch solut. & paper; also as test f. Cl (Genlis), & narceine (Stein).—DOSE: 0.03–0.12 Gm. ($\frac{1}{2}$ –2 grn.).—CAUT.: Keep in sm., glass-stop. bottle; decomp. by light & air (becomes brown; I liberated).

Zinc Iodide-Starch Paper

Wh. paper impregnated w. a ZnI_2 -starch solut. & dried.—USES: Detect. traces of free I (blue color); also ozone.

Zinc Iodide-Starch Solution

Trommsdorff's Solution.—Colorl., clear, or sltly opalesc. liq. Prep. fr. 4 starch, 20 ZnCl_2 , 2 ZnI_2 & W. to 1000, by heat.—Deteriorates w. age & acquires a blue color.—USES: Detect. nitrites, free Cl, & o. oxidizing agents; indicator.

Zinc Lactate

$\text{Zn}(\text{C}_3\text{H}_5\text{O}_2)_2 + 3\text{H}_2\text{O} = 297.53$.—Wh. cryst.—SOL.: 60 W. at 15° C.; 6 boil. W.—ACTION: Antiepileptic.—USES: Inst. of zinc oxide in epilepsy, hysteria, chorea, spastic affections of ocular muscles.—DOSE: 0.03–0.06 Gm. ($\frac{1}{4}$ –grn.), grad. incr.—MAX. D.: 0.06 Gm. (1 grn.) single; 0.6 Gm. (10 grn.) p.d.

Zinc Lactophosphate

Zinc Phospholactate.—Wh. powd.—SOL.: Dil. acids.—ACTION: Antisept.; Astring.; Tonic.—USES: As of zinc lactate, in nerv. diseases.

Zinc Nitrate Merck—C.P.

$\text{Zn}(\text{NO}_3)_2 = 189.39$ (the cryst. contain usually $6\text{H}_2\text{O}$; the pieces somewhat less).—Colorl. cryst. or wh. pieces.—SOL.: Less than 1 W., eas. A.—MELT.: Cryst., 35°–40° C.

MAXIMUM OF IMPURITIES

Sulphate (SO_3)	0.020%
Chloride (Cl)	0.005%
Alkali Salts	0.30%
Heavy Metals	0.000%

do. Merck—Pure—Fused

DESCRIPTION & SOL.: As preceding.—ACTION: Escharotic.—USES: *Extern.*, as 50% paste w. W. & flour in cancerous affect., nevi, &c.—*Techn.*, as a mordant in dyeing.

Zinc Oleate Merck—Dry

$\text{Zn}(\text{C}_{18}\text{H}_{32}\text{O}_2)_2 = 626.06$.—React.-prod., zinc acetate & sodium oleate.—Dry, wh., greasy, powd.; abt 13% ZnO .—SOL.: A., E., CS_2 , & petrol. E.—ACTION: Antisept.; Stim.; Astring.—USES: *Extern.*, sweaty feet, pruritus, indol. ulc. & excoriating surf., & in ecz. inst. of zinc oint. Also insuffiation vehicle f. o. remed.

do. —5%, Mass

5% ZnO in oleic acid.—Wh., semi-solid mass.—SOL.: Oleic acid.—ACTION: Antiseptic.—USES: Oint. w. soft paraffin or petrolatum f. skin dis.

Zinc Oleo-Stearate—B.P.

Fr. 20 hard soap, 10 curd soap 150 W. (diss. w. heat), & add'n of 10 ZnSO_4 in 20 boil'g W.—Wh., amorph. powd.—Insol. W., A., E.—USES: Protect surface of skin in excoriations, to allay irrit'n, & absorb discharge in eczematous conditions.

ZINC ORE, RED—see Zincite**ZINC ORTHOPHOSPHATE—see Zinc Phosphate****Zinc Oxalate Merck**

$\text{ZnC}_2\text{O}_4 + 2\text{H}_2\text{O} = 189.41$.—Wh. powd.—SOL.: Mineral acids & in NH_4OH ; v. sltly W.

Zinc Oxide Merck—Reagent

$\text{ZnO} = 81.37$.—Wh., or yellowish-wh., amorph. powd.—SOL.: Dil. $\text{HC}_2\text{H}_3\text{O}_2$ or mineral acids, NH_4OH , & solut. ammon. carbonate; insol. W.

MAXIMUM OF IMPURITIES

Insol. in H_2SO_4	0.000%
Substcs Reduc. KMnO_4	0.000%
Carbonate (CO_2)	None
Chloride (Cl)	0.001%
Nitrate (N_2O_5)	0.000%
Phosphate (P_2O_5)	0.001%
Sulphate (SO_3)	0.005%
Arsenic (As)	0.0002%
Calcium & Magnesium (Ca, Mg)	0.010%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%
Manganese (Mn)	0.000%

USES: Titrating Mn; neutralizer (e.g., in estimat'g phosphates w. AgNO_3 solut.); converting

sulphocyanates to cyanates; pptng Fe & Al; detect'g tannin; in reag. f. metal salts (Bacovesco), wine coloring matter (Debrun), & testing silk (Persoz).

Zinc Oxide Merck—C.P

$\text{ZnO} = 81.38$.—Amorph., wh. or sltly yellowish-wh. powd.—**SOL.**: Dil. acids, NH_4OH , amm. carbonate; insol. W., A.

MAXIMUM OF IMPURITIES

Substcs Insol. H_2SO_4	0.000%
Substcs Reduc'g KMnO_4	0.005%
Carbonate (CO_2).....	None
Chloride (Cl).....	0.002%
Nitrate (N_2O_5).....	0.002%
Phosphate (P_2O_5).....	0.002%
Sulphate (SO_3).....	0.010%
Arsenic (As).....	0.0005%
Calcium & Magnesium (Ca, Mg).....	0.020%
Foreign Heavy Metals.....	0.000%
Manganese (Mn).....	0.000%

USES: As of the Reagent, above.

do. Merck—U.S.P. X—Powd.

DESCRIPTION & SOL.: As preceding.—**ACTION:** Antispas.; Antisep.; mildly Sed.; Siccativ.—**USES:** *Intern.*, chorea, nervousness, epilepsy, convulsions in children, cramps, cholera inf., whoop-cough, chron. diarrh., dysent., &c.—*Extern.*, as powd. or oint. (5%–20%) f. drying wounds & in skin dis.—**DOSE:** 0.06–0.3 Gm. (1–5 grn.) sev'l t.p.d.—In **VETER. MED.**, *extern.* in otitis, mallenders, ulcerations & wounds, & mastitis; *intern.*, *cattle*, 2–5 Gm. (30–75 grn.); *horses*, 5–10 Gm. (75–150 grn.); *pigs*, 0.5–1 Gm. (8–15 grn.); *calves*, 1.5 Gm. (24 grn.); *dogs*, 0.1–0.5 Gm. (1½–8 grn.).—**CAUT.**: Keep in air-tight vessels.

do. Merck—Technical, by Dry Process

Flowers of Zinc; Zinc White.—By combustion of Zn in air or O.—Wh., amorph. powd.; cont'ns abt 98%–99% ZnO w. a few tenths of 1% Pb.—**SOL.**: Acids; insol. W.—**USES:** In cosmetics, oint., dusting powd.; pigment (inst. of lead carbonate); manuf. artif. meerschäum; printing fabrics; driers; quick-setting cements; manuf. opaque glass (inst. of lead oxide), zinc green, celluloid, paints, varnishes, enamels, automobile tires, white glue, matches, white printing inks, porcelains.

Zinc Perborate Merck

Approx. $\text{Zn}(\text{BO}_3)_2 + x\text{H}_2\text{O}$.—Wh., odorl., amorph. powd.—Insol. W.; slowly decomp'd by W. & yields boric acid w. liberation of H_2O_2 .—**ACTION:** Antisept.—**USES:** Dust.-powd. f. wounds, &c., as it liberates H_2O_2 .

Zinc Permanganate Merck

$\text{Zn}(\text{MnO}_4)_2 + 6\text{H}_2\text{O} = 411.33$.—Violet-brown, or almost black, deliques., cryst.; similar in appearance to potass. permang.—**SOL.**: 3 W.—**ACTION:** Antisept.; non-irritating Antigonor.—**USES:** *Extern.*, solut. of 1:4,000 W. as inj. in gonorr.; 1–2:1,000 W. as eye-wash in conjunctivitis.—**INCOMP.**: All easily oxidizable or combust. substcs (sugar, G., A., &c.).

Zinc-Perhydrol—50%

Zinc-Superoxol, or Peroxide, Merck.—Mixt. eq. parts zinc peroxide, ZnO_2 , & zinc oxide, ZnO .—Wh., odorl., amorph. powd.—**SOL.**: Acids (liberates H_2O_2); insol. W.—**ACTION & USES:** As of Zinc Peroxide (*q.v.*).

ZINC PEROXIDE—see Zinc-Perhydrol

Zinc Peroxide Merck

Zinc Superoxide.—Mixt. of abt 45% ZnO_2 & ZnO w. some H_2O ; abt 7.4% available O.—Wh. to yellowish wh., odorl., bulky powd.—**SOL.**: Acids (H_2O_2 liberated); insol. W. but grad. decomp'd by it.—Decomp'd above 150° C.—**ACTION:** Disinf.; Bactericide; Antisept.; Deodorant; Astringent.—**USES:** Surgery & gynecology, skin dis., wounds, ulcers, burns, &c.—**APPL.**: In 2%–25% oint. (w. paraffin oint.), & as dusting powd. either pure or w. talc & starch, or w. a little tartaric acid, which causes more rapid evol. of H_2O_2 .

Zinc Phenate

Zinc Carbolate or Phenolate.—Wh. powd.—**SOL.**: Sltly in W. & A.—**ACTION:** Antiseptic.—**USES:** Dust.-powd. in surg. & skin dis.

ZINC PHENOLATE—see Zinc Phenate

ZINC PHENOLSULPHONATE—see Zinc Sulphocarbolate

Zinc Phosphate Merck

Zinc Orthophosphate.— $\text{Zn}_3(\text{PO}_4)_2 = 386.19$.—Wh., odorl. powd.—**SOL.**: Mineral acids, NH_4OH , & solut. ammon. salts; insol. W., A.—**ACTION:** Antiepilept.; Antisept.; Astring.; Tonic.—**USES:** Nerv. dis., epilepsy, insanity, &c.—*Techn.*, in dental cements.—**DOSE:** 0.1–0.2–0.3 Gm. (1½–3–5 grn.) 3 to 4 t.p.d.—**MAX. D.**: In acid solut. 1 Gm. (15 grn.) p.d.

Zinc Phosphide Merck

$\text{Zn}_3\text{P}_2 = 258.19$.—Dark-gray, lustr., gritty powd.; faint P odor.—**SOL.**: HCl & H_2SO_4 w. evol. of H_3P (spontan. inflam.), & insol. W. & A.; reacts violently w. conc. HNO_3 .—**ACTION:** Stimulant to nervous system.—**USES:** Inst. of phosphorus in sexual exhaustion, cerebral affect., mania, melancholia, epilepsy, rachitis, caries, osteomalacia, paralysis, & chronic skin dis.—**DOSE:** 0.003–0.015 Gm. (1/20–1/4 grn.), B.P.C.—**CAUT.**: Do not triturate or heat w. oxidizing agents.

Zinc Phosphite Merck

$\text{ZnHPO}_3 + 2\frac{1}{2}\text{H}_2\text{O} = 190.46$ (?).—Gran., cryst. powd.—**SOL.**: Cold W., alm. insol. hot W.—**ACTION:** Antisept.; Astring.; Tonic.—**USES:** Nerv. dis.

ZINC PHOSPHOLACTATE—see Zinc Lactophosphate

Zinc Pyrophosphate

$\text{Zn}_2\text{P}_2\text{O}_7 + 1\frac{1}{2}\text{H}_2\text{O} = 331.84$.—Wh. powd.—**SOL.**: Acids.

ZINC RHODANIDE—see Zinc Sulphocyanate

Zinc Salicylate Merck

$\text{Zn}(\text{C}_6\text{H}_4\text{OH}.\text{COO})_2 + 3\text{H}_2\text{O} = 393.57$.—Wh. odorl. need. or cryst. powd.—**SOL.**: W.; A.—**USES**: *Intern.*, blennorrhagias, cancer of tongue, & as of ZnO.—*Extern.*, as mild astring. in 0.5%—1% aqu. solut. in cancer, ulcers, gonorrh., conjunctivitis; also as dust. powd., & as Itallie's zinc-gelatin, in skin dis.—**DOSE**: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—**MAX. D.**: 0.1 Gm. ($\frac{1}{2}$ grn.) single; 0.3 Gm. (5 grn.) p.d.

Zinc Silicofluoride

$\text{ZnSiF}_6 + 6\text{H}_2\text{O} = 315.57$.—Wh. cryst.—**SOL.**: W.

ZINC SOZOIODOLATE—see Soziodole-Zinc

Zinc Stearate Merck—U.S.P. X

Approx. $\text{Zn}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 = 632.11$.—Fine, wh., soft, bulky powd.; cont's 13%–15.5% ZnO & some zinc palmitate.—**INSOL.** W., A., E.—**ACTION**: Mildly Antisep.; Astring., without irritant action on mucosa.—**USES**: Gonorr., atrophic rhinitis, &c.—**APPL.**: In substance, or mixed w. menthol (2%) in urethritis & gonorr., & as insuff. in rhinology; also as dust. powd. f. burns (5 zinc stearate & 1 powd. acetanilid); v. useful in sunburn; excellent also to prevent chafing, to keep the skin smooth & soft, to prevent irrit'g effects of excessive perspiration, to help heal irrit'd or inflamed surfaces, & to relieve "sore & burning feet."

ZINC SUBCARBONATE—see Zinc Carbonate

Zinc Subgallate Merck

Zinc Gallate.—Greenish-gray, neutral, odorl. powd.—**INSOL.** in ordinary solvents.—**ACTION**: Antisep.; Astring.—**USES**: *Intern.*, fermentative dis. of intest., & in night sweats.—*Extern.*, ecz., wounds, gonorr., piles.—**DOSE**: 0.03–0.25 Gm. ($\frac{1}{2}$ –4 grn.) in W. & mucilage.—**APPL.**: Pure, or in powd. or oint.

Zinc Sulphate Merck—Reagent—Cryst.

$\text{ZnSO}_4 + 7\text{H}_2\text{O} = 287.54$.—Colorl., effloresc. cryst.—**SOL.**: Abt 0.6 W.; alm. insol. A.

MAXIMUM OF IMPURITIES

Free Acid (as H_2SO_4)	0.005%
Chloride (Cl)	0.001%
Nitrate (N_2O_6)	0.001%
Alkalies & Earths	0.200%
Ammonium Comp'ds (NH_3)	0.002%
Arsenic (As)	0.0002%
Iron (Fe)	0.001%
Other Heavy Metals	0.000%
Manganese (Mn)	0.000%

USES: Pptng proteoses; standardizing Na_2S solut. employed in volum. determ'g Zn; reag. f. albumoses (Bömer), SO_2 (Bödeker), urea (Ganassini), & glucose (Reicherstein).

Zinc Sulphate Merck—C. P.—Cryst.

White Vitriol; Zinc Vitriol.— $\text{ZnSO}_4 + 7\text{H}_2\text{O} = 287.54$.—Colorl. cryst. or gran. powd.; astring., metal. taste; effloresce in dry air.—**SOL.**: Abt 0.6 W.; insol. A.

MAXIMUM OF IMPURITIES

Free Acid (H_2SO_4)	0.009%
Chloride (Cl)	0.003%

Alkalies & Earths	0.300%
Ammonium Comp'ds (NH_3)	0.004%
Arsenic (As)	0.0005%
Iron (Fe)	0.002%
Other Heavy Metals	0.000%

USES: As of the Reagent, above.

do. Merck—C.P.—Dried

$\text{ZnSO}_4 + 2\text{H}_2\text{O} = 197.46$.—Wh., light powd.—**SOL.**: W.; insol. A.

MAXIMUM OF IMPURITIES

Free Acid (H_2SO_4)	0.012%
Chloride (Cl)	0.014%
Alkali & Magnesium	0.50%
Ammonium Comp'ds (NH_3)	0.005%
Iron (Fe)	0.003%
Other Heavy Metals	0.000%

do. Merck—U.S.P. X—Cryst., or Gran., or Powd.

$\text{ZnSO}_4 + 7\text{H}_2\text{O} = 287.54$.—Color. crystl., granules, or gran. powd.; astring., metal taste, effloresc. in dry air.—**SOL.**: 0.6 W. & 2.5 G. at 25° C., & insol. A., U.S.P.—**ACTION**: Emetic; Astring.; Antisep.; Escharotic.—**USES**: *Intern.*, gastric catarrh, nerv. affect., night sweats.—*Extern.*, gonorr., ophthalmia, skin dis., &c.; as wash, gargle, or inj., 0.5%–2% solut.; as vaginal wash, 1% solut; in gonorrh., 0.5%–2% solut.; for painting on eyelids, 1% solut. As eye-wash, 1:1,000; in skin dis. & as oint., 1:10–20.—**DOSES**: 0.03–0.2 Gm. ($\frac{1}{2}$ –3 grn.); 0.015–0.03 Gm. ($\frac{1}{4}$ – $\frac{1}{2}$ grn.), U.S.D.; emetic, 0.6–2 Gm. (10–30 grn.); aver. emetic dose, 1 Gm. (15 grn.).—In **VETER. MED.**, *extern.*, in 0.1%–5% solut. in ulcer & cancer of the frog, external otitis, fistulas of the hoof cartilages, vaginitis & conjunctivitis.—*Intern.*, as emetic, pigs, 0.5–1 Gm. (8–15 grn.); dogs, 0.1–0.3 Gm. ($\frac{1}{2}$ –5 grn.); cats, 0.05–0.1 Gm. ($\frac{3}{4}$ –1½ grn.).—**ANTID.**: Alkali carbonates, tannin, albumin, demulcents, milk; opium in late stages.

do. Merck—Technical—Gran., or Dried Powd.

USES: *Techn.*, disinfectant; as mordant in calico printing; manuf. zinc paints, enamels, varnishes, & lacquers; preserv. wood & skins; w. barium hypochlorite f. bleaching paper; siccativ f. varnishes & oils; manuf. lithopone; in fireproof paints; preserv'g wood; clarifying glue; electrodepositing Zn; preserv'g hides.

Zinc Sulphide Merck—Pure

$\text{ZnS} + \text{water of hydrätion}$.—Wh. powd.—**SOL.**: Acids.—**USES**: *Extern.*, in erythematous lupus & seborrhea (freshly made fr. zinc sulphate & sulphurated potassa).

Zinc Sulphide Merck—Technical

Wh. to yellowish-wh. powd.—**USES**: Pigment f. paints, oil cloths, linoleum, leather, dental rubber, etc.; mixed w. ZnO as "mineral white"; manuf. wh. & opaque glass; dyeing textiles w. hydrosulphite; manuf. lithopone; manuf. glue & plastic comp'ds.

Zinc Sulphite

$\text{ZnSO}_3 + 2\text{H}_2\text{O} = 181.46$.—Wh., cryst. powd.; readily absorbs oxygen fr. air.—**SOL.**: v. sltly

W.—ACTION: Antisep.—USES: Skin dis., us'y in form of gauze.—*Techn.*, in aqu. solut. f. preserv. anatom. specimens & cadavers; as mordant in dyeing & printing textiles.

Zinc Sulphocarbonate Merck—N.F. V.—Gran., or Powd.

Zinc Sulphophenate, or Phenolsulphonate.— $(C_6H_4[OH]SO_3)_2Zn[1:4] + 8H_2O = 555.76$.—Clear, colorl., effloresc. columnar cryst., or fine, wh. powd.—SOL.: 1.6 W. & 1.8 A. at 25° C., & 0.4 boil. W.—ACTION: Antisep.; Astring.—USES: *Intern.*, typhoid, dysentery, fermentative diarrh., etc.—*Extern.*, astring., stim. f. foul ulc. & muc. membr. w. sub-acute inflam.; 1–2:200 solut. as inj. in gonorr.—*Techn.*, in prepar. "Bouillie lyonnaise," f. destroying Oidium on vines, & as alcohol denaturant.—DOSE: 0.06–0.25 Gm. (1–4 grn.); aver. dose, 0.12 Gm. (2 grn.).

Zinc Sulphocyanate

Zinc Sulphocyanide, or Rhodanide.— $Zn(CNS)_2 = 181.52$.—Wh. powd.—SOL.: A., NH_4OH .

ZINC SULPHOCYANIDE—see Zinc Sulphocyanate

ZINC "SULPHOICHTHYOLATE"—see Sulphoichthyolate (Zinc)

ZINC SULPHOPHENATE—see Zinc Sulphocarbonate

ZINC SUPEROXIDE—see Zinc Peroxide

ZINC-SUPEROXOL—see Zinc-Perhydrol

Zinc Tannate

Sal Barnit.—Variable compos., but prob'y $Zn_3(C_{27}H_{19}O_{17})_2 = 1426.68$.—Gray powd.—SOL.: Dil. acids; insol. W., A.—ACTION: Astring.; Antisep.—USES: *Intern.*, diar. affect.—*Extern.*, in gonorr., as inject. (0.1–0.5:150 W. w. a little mucil. acacia).—DOSE: 0.05–0.2 Gm. ($\frac{1}{4}$ –3 grn.).

Zinc Tartrate

$ZnC_4H_4O_6 + H_2O = 231.44$.—Wh. powd.—SOL.: Sltly W.

ZINC TRICHLOROCARBOLATE—see Zinc Trichlorophenate

Zinc Trichlorophenate

Zinc Trichlorocarbonate.— $Zn(C_6H_2Cl_3O)_2 = 458.22$.—Wh. powd.; decomp. by HCl.—ACTION: Antisep., like trichlorophenol.—USES: Skin dis.

Zinc Valerate Merck—U.S.P. IX—Cryst. or Powd.

$Zn(C_5H_9O_2)_2 + 2H_2O = 303.60$.—Wh., glist. scales, or powd.; valeric acid odor; sweetish taste; decomp. on expos.—SOL.: Abt 100 W., & 40 A.—ACTION: Antispasm.; Tonic. USES: Diab. insipidus, nerv. affect., neural., migraine, epilepsy, sleeplessness, chorea, &c.—DOSE: 0.03–0.06 Gm. ($\frac{1}{2}$ –1 grn.).—MAX. D.: 0.3 Gm. (5 grn.) p. day.—VETER. MED., as sedat. in colics; dogs, 0.01–0.1 Gm. ($\frac{1}{16}$ – $\frac{1}{2}$ grn.); cats, 0.01–0.03 Gm. ($\frac{1}{16}$ – $\frac{1}{2}$ grn.).—CAUT.: Keep well stop'd.

ZINC VITRIOL—see Zinc Sulphate

ZINC WHITE—see Zinc Oxide

ZINC YELLOW—see Zinc Chromate

Zinc & Ammonium Chloride

$ZnCl_2.5NH_3 + H_2O = 239.47$, when freshly prepared.—Wh. deliq. cryst.; loses NH_3 on expos.—SOL.: Acids, NH_4OH ; in W. w. decomp.—USES: Welding, & as flux in soldering; also in electric batteries.—CAUT.: Keep well stoppered & cool.

Zinc & Ammonium Sulphate

$ZnSO_4.(NH_4)_2SO_4 + 6H_2O = 401.66$.—White cryst.—SOL.: Eas. W.

Zinc & Manganese Chloride

$2ZnCl_2.MnCl_2 + 3H_2O = 452.48$.—Rose-red cryst.—SOL.: A. & W. w. turb'ty.

Zinc & Potassium Cyanide

$Zn(CN)_2.2KCN = 247.62$.—Wh. cryst. powd.—SOL.: Eas. W.—Possesses all the medicinal properties of HCN, but is stable, hence used inst. of the acid.—DOSE: 0.006–0.06 Gm. ($\frac{1}{10}$ –1 grn.) sev'l t.p.d. in solut.

Zinc & Potassium Sulphate

$K_2Zn(SO_4)_2 + 4H_2O = 407.75$.—Wh. cryst.

Zinc & Sodium Alloy

Whitish-gray, granules, cont'g up to abt 3% Na.—USES: Organic synthesis..

Zinc & Tin Amalgam

Fr. 1 tin, 1 zinc, & 2 mercury.—Gray lumps w. metal. luster.—USES: Kienmayer's friction pads f. electrical machines, & in dental cements.

Zincite—Mineral

Red Zinc Ore.—OCCUR.: Sterling, N. J.—COMPOS.: $(Zn)O$ w. sometimes traces of Mn.—CRYST. SYST.: Hexag. hemimorph.—LUSTER: Subadamantine to submetallic.—COLOR: Dark-red to orange-red.—STREAK: Orange-yellow.—CLEAV.: Perfect basal.—Transluc. to subtransluc.—BRITTLE.—HARDN.: 4–4.5.—SP. GR.: 5.43–5.7.—USES: Zinc ore.

ZINKSPATH—see Calamine

Zinnwaldite—Mineral

Iron-Lithium Mica.—OCCUR.: Zinnwald; Altenberg, Germany; Cornwall.—COMPOS.: $Si_5O_{16}Al_3Fe(Li,K)_3(F,OH)_2$.—CRYST. SYST.: Monosym.—COLOR: Pale-violet, yellow to brown, & gray.—USES: Source of lithium preparations.

Zircon—Mineral

OCCUR.: Chiefly Norway, but found in all parts of the world.—COMPOS.: $ZrSiO_4$.—CRYST. SYST.: Tetrag.—LUSTER: Adamantine to vitr.—COLOR: Us'y gray or brown when opaque, & red when transp.; also yellow & green.—STREAK: Wh.—FRACT.: Conch.; brittle.—HARDN.: 7.5.—SP. GR.: 4.68–4.70.—USES: Source of zirconium compds.

ZIRCONIA

ZIRCONIC ANHYDRIDE } see Zirconium Oxide

Zirconium—Small Cryst., or Cryst. Scales

Zr = 90.60.—Cont's a sm. quant. Al.—Hard, lustr., grayish, monosymmetrical scales.—SOL.: Cold conc. HF; in solut. KOH w. evol. of H; slowly in hot conc. HCl.

Zirconium Carbonate

Compos. variable, but approx. $3\text{ZrO}_2 \cdot \text{CO}_2 + 6\text{H}_2\text{O} = 519.90$.—Wh., amorph. powd.—SOL.: Eas. in dil. mineral acids when freshly pptd.; insol. W.

Zirconium Chloride—Anhydrous, Sublimed

Zirconium Tetrachloride.— $\text{ZrCl}_4 = 232.44$.—Wh., lustr. cryst.; decomp. in moist air.—Sublimes at 400°C . in current of Cl.

ZIRCONIUM CHLORIDE, BASIC—see Zirconium Oxychloride

ZIRCONIUM DIOXIDE—see Zirconium Oxide, Anhydrous

Zirconium Hydroxide

Approx. $\text{ZrO}(\text{OH})_2 = 140.62$.—Wh., bulky, amorph. powd.—SOL.: Dil. mineral acids when freshly made; insol. W.—USES: As of zirconium oxide.

Zirconium Nitrate—Basic—Cryst.

Compos. variable; approx. $3\text{ZrO}_2 \cdot 2\text{N}_2\text{O}_5 = 583.83$.—Wh., amorph. scales.—SOL.: Eas. W., A.

Zirconium Oxide—Anhydrous

Zirconium Dioxide; Zirconia; Zirconic Anhydride.— $\text{ZrO}_2 = 122.60$.—Heavy, wh., amorph., odorl., tastel. powd. Acts as a basic oxide.—Insol. in HCl, & cold H_2SO_4 ; decomposed by hot H_2SO_4 & HF.—USES: In Roentgenology; does not produce toxic symptoms as do bismuth salts sometimes, as it is not injurious to the organism.—*Techn.*, inst. of lime f. the oxyhydrogen light; also w. earths of the yttrium group in incandescent lighting (Nernst lamps);

as abrasive; manuf. enamels, ceramics, & refractory utensils & cements.—DOSE: 75 Gm. ($2\frac{1}{2}$ oz.) f. stomach investigation; as rectal inj. f. contrast purposes, 150–200 Gm. ($5\text{--}6\frac{1}{2}$ oz.) w. 200 Gm. ($6\frac{1}{2}$ oz.) kaolin suspended in 1000 cc. (33 fl. oz.) W.

Zirconium Oxychloride

Basic Zirconium Chloride; Zirconyl Chloride.— $\text{ZrOCl}_2 + 8\text{H}_2\text{O} = 321.65$.—Wh., silky, acic., tetragon. cryst.; astring. taste.—SOL.: v. eas. W. & A.

Zirconium Phosphate—Basic

Zirconium, Orthophosphate.—Approx. $5\text{ZrO}_2 \cdot (\text{P}_2\text{O}_5)_4 + 8\text{H}_2\text{O} = 1325.45$.—Wh., dense, amorph. powd.—SOL.: In moderately strong mineral acids; insol. W.

Zirconium Sulphate

Approx. $\text{Zr}(\text{SO}_4)_2 + 4\text{H}_2\text{O} = 354.78$.—Wh., cryst. powd.—SOL.: Eas. W.

ZIRCONIUM TETRACHLORIDE—see Zirconium Chloride

Zirconium & Ammonium Fluoride

Ammonium Zirconifluoride.— $\text{Zr}(\text{NH}_4)_2\text{F}_6 = 240.68$.—Wh. cryst.—SOL.: W.

Zirconium & Potassium Fluoride

Potassium Zirconifluoride.—Usually $\text{ZrK}_2\text{F}_6 = 282.80$, but comp'ds of other compos'n also known.—Wh. cryst.—SOL.: Hot W.; sltly cold W.—USES: Manuf. metallic zirconium.

Zirconium & Potassium Sulphate

$2\text{K}_2\text{SO}_4 \cdot \text{Zr}(\text{SO}_4)_2 + 3\text{H}_2\text{O} = 685.29$.—Wh., cryst. powd.—SOL.: Sltly W.

ZIRCONYL CHLORIDE—see Zirconium Oxychloride

ZUCKERIN—see Saccharin

ZYLONITE—see Celluloid

ZYMASE—see Invertin

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Atomic Weights

Adopted by the International Committee on Chemical Elements (1921), and used in the U.S.P. X; also the American Chemical Society table of 1929

Oxygen = 16

Name	Symbol	Atomic Weight		Name	Symbol	Atomic Weight	
		1921	1929			1921	1929
Aluminum....	Al	27.0	26.97	Molybdenum..	Mo	96.0	96.0
Antimony....	Sb	120.2	121.77	Neodymium...	Nd	144.3	144.27
Argon.....	A	39.9	39.94	Neon.....	Ne	20.2	20.183
Arsenic.....	As	74.96	74.96	Nickel.....	Ni	58.68	58.69
Barium.....	Ba	137.37	137.36	Niton (Radon)	Nt	222.4	222
Bismuth.....	Bi	209.0	209.00	Nitrogen.....	N	14.008	14.008
Boron.....	B	10.9	10.82	Osmium.....	Os	190.9	190.8
Bromine.....	Br	79.92	79.916	Oxygen.....	O	16.00	16.0000
Cadmium.....	Cd	112.40	112.41	Palladium.....	Pd	106.7	106.7
Calcium.....	Ca	40.07	40.07	Phosphorus...	P	31.04	31.02
Carbon.....	C	12.005	12.000	Platinum.....	Pt	195.2	195.23
Cerium.....	Ce	140.25	140.13	Potassium.....	K	39.10	39.10
Cesium.....	Cs	132.81	132.81	Praseodymium	Pr	140.9	140.92
Chlorine.....	Cl	35.46	35.457	Radium.....	Ra	226.0	225.97
Chromium....	Cr	52.0	52.01	Rhodium.....	Rh	102.9	102.91
Cobalt.....	Co	58.97	58.94	Rubidium.....	Rb	85.45	85.44
Columbium...	Cb	93.1	93.1	Ruthenium...	Ru	101.7	101.7
Copper.....	Cu	63.57	63.57	Samarium.....	Sa	150.4	150.43
Dysprosium...	Dy	162.5	162.48	Scandium.....	Sc	45.1	45.10
Erbium.....	Er	167.7	167.64	Selenium.....	Se	79.2	79.2
Europium....	Eu	152.0	152.0	Silicon.....	Si	28.1	28.06
Fluorine....	F	19.0	19.00	Silver.....	Ag	107.88	107.880
Gadolinium...	Gd	157.3	157.26	Sodium.....	Na	23.00	22.997
Gallium.....	Ga	70.1	69.72	Strontium.....	Sr	87.63	87.63
Germanium...	Ge	72.5	72.60	Sulphur.....	S	32.06	32.06
*Glucinum....	Gl	9.1	9.02	Tantalum....	Ta	181.5	181.5
Gold.....	Au	197.2	197.2	Tellurium....	Te	127.5	127.5
Helium.....	He	4.00	4.002	Terbium.....	Tb	159.2	159.2
Holmium.....	Ho	163.5	163.5	Thallium.....	Tl	204.0	204.39
Hydrogen....	H	1.008	1.0078	Thorium.....	Th	232.15	232.12
Indium.....	In	114.8	114.8	Thulium.....	Tm	169.8	169.4
Iodine.....	I	126.92	126.932	Tin.....	Sn	118.7	118.70
Iridium.....	Ir	193.1	193.1	Titanium.....	Ti	48.1	47.90
Iron.....	Fe	55.84	55.84	Tungsten.....	W	184.0	184.0
Krypton.....	Kr	82.92	82.9	Uranium.....	U	238.2	238.14
Lanthanum...	La	139.0	138.90	Vanadium.....	V	51.0	50.96
Lead.....	Pb	207.20	207.22	Xenon.....	Xe	130.2	130.2
Lithium.....	Li	6.94	6.940	Ytterbium...	Yb	173.5	173.6
Lutecium....	Lu	175.0	175.0	Yttrium.....	Yt	89.33	88.92
Magnesium...	Mg	24.32	24.32	Zinc.....	Zn	65.37	65.38
Manganese....	Mn	54.93	54.93	Zirconium....	Zr	90.6	91.22
Mercury.....	Hg	200.6	200.61				

* In the 1929 table this is listed as Beryllium (Be).

Reactions of the More Important Alkaloids and Glucosides

ABBREVIATIONS

Bl = blue	Br = brown	Cr = crimson	G = green	It = light	P = purple	soln = solution	Wh = white
bl = bluish	br = brownish	dk = dark	g = greenish	ol = olive	R = red	V = violet	wh = whitish
Bk = black	Ca = carmine	dt = dirty	In = indigo	Or = orange	r = reddish	Y = yellow	- = to
bk = blackish	ch = cherry	exs = excess	lm = lemon	ppt = precipitate	Sc = scarlet	y = yellowish	Δ = changing to

COLOR REACTIONS										PRECIPITATES			VARI- OUS OTHER REACTIONS
	Conc. H ₂ SO ₄	Conc. HNO ₃	H ₂ SO ₄ + HNO ₃ (Erdmann)	H ₂ SO ₄ + Amon. (or Sol.) Molybdate 100 : 1 : 5 (Froehde)	H ₂ SO ₄ + Amon. meta- Vanadate 200 : 1 (Mandelin)	H ₂ SO ₄ + Selenous Acid 200 : 1 (Mecke)	H ₂ SO ₄ + Formalde- hyde 25 : 1 (Marquis)	HgI ₂ , 2KI	BiI ₃ , 4KI	I, KI	Picric Acid		
Aconitine	color, pure; r impure;Δr by heat	color—Br—R	colorΔV	color—YΔYBr	lt Br—Or	alm. color—y Δlt Br by heat	color	Wh. ppt in dil. soln	Y (1 : 40,000)	Br	ppt only in conc. soln	H ₂ SO ₄ + sugar = R color FeCl ₃ = Y ppt K ₂ Cr ₂ O ₇ = Y ppt	
Apomorphine	color	P—Or	R—Or	GΔV	GΔBl	VΔdk Br by heat	bloodRAVRA yBr by heat	Y only pptΔ cryst	1 : 10,000	blood R	Y	FeCl ₃ = RABk ppt Tannin = yG ppt	
Atropine	color	color	color	color	RAY	color	brΔdtG by heat	1 : 7000	rYAcacary Y (1 : 10,000)	rBr (1 : 3000)	Y only in conc. soln (1 : 200)	H ₂ SO ₄ + K ₂ Cr ₂ O ₇ + heat = bitter almond color. —HNO ₃ & evap. Y res. + alcOH. KOH = VΔch R	
Bebeerine	brΔr by heat	R—rBr	Br	VArBrΔdt G	dt GΔBr		color—br	Wh. amorph	Or R	Br	Y amorph (1 : 3000)		
Berberine	ol GΔYΔol G by heat	rBr	olGΔyBr	br GΔol G by heat	dk Br	gY—brV—R		yG	OrR (1 : 5000)	rBr	lt Y (1 : 3000)	HCl soln + Cl water = R color H ₂ SO ₄ + oxidizng (e.g. MnO ₂) = play of colors (like strychnine)	
Brucine	colorΔY by heat	blood RΔorY	RΔY	RAYΔcolor	yΔOr	yRΔlmY by heat	lt R	wh Y (1 : 5000)	rY (1 : 5000)	Br (1 : 50,000)	Cryst (1 : 10,000)	H ₂ SO ₄ + K ₂ Cr ₂ O ₇ = OrΔR by dil. acids K ₄ Fe(CN) ₆ = Y pptΔBl	
Caffeine	color	color	color	color	color	color	color	none	none?	dt dk Br in strong soln	none or only in conc soln	Evap. w. HNO ₃ ; res. + NH ₄ OH (caut.) = P color (murexid test)	
Cinchonidine	color	color	color	color	color	color	color					HgPtCl ₅ = lt Or ppt AuCl ₃ .HCl = Y ppt K ₄ Fe(CN) ₆ = rY ppt	
Cinchonine	color	color	color	color	color	color	color	Wh (1 : 75,000)	brick R (1 : 50,000)	dk Br (1 : 500,000)	Y (1 : 100,000)	K ₄ Fe(CN) ₆ = y Wh ppt Tannin = y Wh ppt Cl-water = no color; add NH ₄ OH = Wh ppt	
Cocaine	color pure, r impure	color	color	color	Or	color Δlt RAY by heat	color	1 : 140,000		Br (1 : 50,000)	Y (1 : 1000)	H ₂ SO ₄ + heat = vapors of ben- zoic acid H ₂ SO ₄ + a. periodate + gentl heat = bright green colorΔBlΔV AuCl ₃ .HCl = lt Y ppt	

Reactions of the More Important Alkaloids and Glucosides—Continued

	COLOR REACTIONS							PRECIPITATES				VARIOUS OTHER REACTIONS
	Conc. H_2SO_4	Conc. HNO_3	$\text{H}_2\text{SO}_4 + \text{HNO}_3$ (Erdmann)	$\text{H}_2\text{SO}_4 +$ (or Sod.) Molybdate 100:1-5 (Froehde)	$\text{H}_2\text{SO}_4 +$ Ammon. meta Vanadate 200:1 (Mandelin)	$\text{H}_2\text{SO}_4 +$ Selenous Acid 200:1 (Mecke)	$\text{H}_2\text{SO}_4 +$ Formaldehyde 25:1 (Marquis)	HgI_2 , 2KI	BiI_3 , 4KI	I. KI	Picric Acid	
Codeine	color↓BI by heat↓R by HNO_3	Y—R	color↓BI by heat	lit GABl/dlt Y	gBlΔBI	GABlΔol G	Ca RΔVBIΔy Br	1:50,000	y R (1:30,000)	Br (1:60,000)	Y (1:250)	$\text{H}_2\text{SO}_4 + \text{FeCl}_3 = \text{deep Bl}$ $\text{H}_2\text{SO}_4 + \text{sugar} = \text{R}$ $\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7 = \text{ol G}$
Colchicine	YΔR by heat	VΔhr RΔOr by NaOH	BlΔR by KOH	YΔyG	bl GrΔBr	lmYΔyBr by heat	Y	only in conc. soln	1:3000	Br (1:2500)	only in conc soln	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7 = \text{GΔBr}$ Cl-water = Y ppt
Conine	color	y—color	color	color↓ΔY	color	color	color↓—bl	Wh (1:8000)	Y (1:6000)	dk Br	only in conc soln	
Curarine	bl—R	P	V—R	V	V	lt VΔr	rVΔbl V by heat	ppt				
Diacetylmorphine	color	YΔR by heat		P	lkG	G						
Digitalin	Bl—rBrΔch R		lt Br	dk OrΔch RΔBr				none	only in conc soln	turb.		
Emetine	color↓—dt Br by KOH	Or Y	GΔY	color↓AGΔBI by HCl	Br	GΔV by water	Br	Y amorph (1:25,000)	1:25,000	1:25,000	Y amorph (1:25,000)	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7 = \text{Br}$
Ethylmorphine				GΔBI by heat	G	G	deep Bl					
Gelsemine	color↓—yBrΔ yG	color↓—gY		yBrΔlt VR	PAVR						Y	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7 = \text{VR}$ $\text{H}_2\text{SO}_4 + \text{sugar} = \text{R}$
Hydrastine	color↓—yBR by heat	Or	Y—Or R	color↓—GΔBr	Ca RΔOr R	Br	gY—br				ppt	$\text{K}_4\text{Fe}(\text{CN})_6 = \text{Wh ppt}$
Hyoscyne (Scopolamine)	color↓BI by heat	on evap slt Y resΔV by alcch. KOH	color	color			Y—OrΔhr Blk by heat	yWh		oily ppt	Y	$\text{K}_4\text{Fe}(\text{CN})_6 = \text{Wh ppt}$
Hyoscyamine	color	color	color	color	color			Wh	R ppt	Or ppt	Y (melt 161—163° C)	
Lobeline	rBr			rBr				lt Y (in acid soln)		Br in acid soln	ppt	
Morphine	color↓ΔP by heat	Or RΔY	br RΔdk Br	VΔGΔhr YΔBI	rΔblV	BlΔhl GΔBr by heat	Ca RΔV	1:2500	yR (1:5000)	r Br (1:5000)	none	$\text{FeCl}_3 = \text{Bl}$ in neutral soln (color destroyed by acids or alcch.) 1:5000
Narceine	BrΔblood R by heat	br YΔdk Or by heat	YΔhr YΔOr by heat	br GΔdk ol CΔ ch R by heat	V—Or	gY Δ V by heat	YΔrBrΔdk R by heat	amorph (1:10,000)	Y	Br	Y (1:3000)	
Narcotine	color↓ΔYΔR by heat	gY—rY	rVΔR	bl CΔchR	CaR	gBlΔchR by heat	VΔblood R	Wh (1:50,000)	lt Y (1:4000)	r Br (1:3000)	Y amorph	Cl-water = gΔy Wh by NH_4OH
Nicotine	color	color	color↓—Y—R	color↓—Y—rWh	color	Y	color	Wh (1:2500)	FΔdk Wh (1:40,000)	r Br (1:250,000)	Y only in conc soln	

Reactions of the More Important Alkaloids and Glucosides—Continued

	COLOR REACTIONS							PRECIPITATES				VARIOUS OTHER REACTIONS
	Conc. H_2SO_4	Conc. HNO_3	$\text{H}_2\text{SO}_4 + \text{HNO}_3$ (Erdmann)	$\text{H}_2\text{SO}_4 + \text{Ammon. Molybdate}$ 100:1–5 (Fröhde)	$\text{H}_2\text{SO}_4 + \text{Ammon. meta Vanadate}$ 200:1 (Mandelin)	$\text{H}_2\text{SO}_4 + \text{Selenous Acid}$ 200:1 (Mecke)	$\text{H}_2\text{SO}_4 + \text{Formaldehyde}$ 25:1 (Marquis)	$\text{HgI}_2 \cdot 2\text{KI}$	$\text{BiI}_3 \cdot 4\text{KI}$	I. KI	Picric Acid	
Papaverine	color—pale P Δ dkV by heat	y—dk R	gBl Δ dk R	GABlAVach R by heat	bl G—Bl	g Δ dk BlAV by heat	RAOr	Wh (1:1000)	Or R (1:10,000)	dk R (1:50,000)	Y (1:500)	Cl-water = g Δ Br by NH_4OH
Physostigmine	color—Y	Y Δ ol GAR	Y Δ R	color	gY Δ yBr by heat	br Y Δ lt br R by heat	color	Wh (1:5000)	ppt	r Br (1:25,000)	only in conc soln	Alkali hydroxides = intense RA Y Δ GABl
Pilocarpine	color	Orablood R by heat	color	RAalm Bk Δ dkG	Y Δ lt GABl	color	color—y Δ R	yWh	ppt	ppt	ppt	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = G color
Piperine	blood Rabr Bk	color	color	g	bl G	gBr	R	1:5000	brick R Δ dt Wh	Br	ppt	Cl-water + NH_4OH = as under Quinine $\text{K}_4\text{Fe}(\text{CN})_6$ = y Wh ppt $\text{K}_2\text{Cr}_2\text{O}_7$ = Y ppt
Quinidine	color	color	color	color	color	color Δ lt Br by heat	color	Wh (1:125,000)	Or R (1:90,000)	r Br	amorph (1:40,000)	Cl-water + NH_4OH = G flooks sol in exs (emerald G soln); soln neutralized = Bl—VAG by NH_4OH $\text{K}_2\text{Cr}_2\text{O}_7$ = Y ppt Periodic acid liberates free I
Quinine	color—lt y Δ Br by heat	color	color	color	color	color Δ lt Br by heat	color	none	Y	none in acid soln	ppt in conc soln	
Solanine	BrArV	color	rY Δ lt R	Or Δ BrAY	Or Δ RAV	rY Δ grayish Br by heat	Br	none	none	none	Y	
Sparteine	color	color	color	color	color			none	none	none	none	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = gBr HCl = Y Δ a series of colors by heat HIO_4 = lt Br FeCl_3 = g Y color or slt ppt
Strophanthin	lt YAGABr	lt Br Δ a series of colors by heat	color					wh (1:15,000)	lt Y (1:250,000)	rBr (1:50,000)	Y (1:20,000)	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = VBl Δ RAAG HIO_4 = wine R
Strychnine	color Δ lOr Y by KOH	color Δ Y by heat	color	color	VBlAR	color	color Δ gBr by heat	none	none	ppt in conc soln	none	Evap. w. Cl-water or HNO_3 & add NH_4OH = P color (murex- id test)
Theobromine	color	color	color	color	color			none	none	ppt (1:5000)	Y	
Thebaine	blood RAYR	Y	R	Or				ppt (1:5000)	Or (1:10,000)	ppt (1:5000)	Y	
Veratrine	YAVAR by heat	Y	Y—OrAchR	Y Δ OrAch R	YAch RAP	lm Y Δ ol CA br V by heat	yBr Δ rBr by heat	yWh in conc. soln.	lt Y Δ acary Y in conc soln	Br (1:15,000)	1:10,000	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = rBr H_2SO_4 + sugar = grad. deep GA Bl HCl = deep Vaintense R by heat
Yohimbine	color Δ dt G by $\text{K}_2\text{Cr}_2\text{O}_7$	color Δ ltense Y Δ Or R by heat	bl Bk Δ g— yBr		Bl	InBl	dt G Δ br V by heat	Wh			y	

Supplementary List of Tests of Alkaloids & Glucosides

Adonidin	H_2SO_4 = deep R.— HNO_3 = In Bl.— HCl = lt R.—Ppts w. $\text{AuCl}_3.\text{HCl}$ & picric acid
Arecoline	$\text{HgI}_2.2\text{KI}$ = Y.— $\text{BiI}_3.4\text{KI}$ = R.— $\text{AuCl}_3.\text{HCl}$ = Y oily ppt.—Picric acid = tarry ppt.—Tannin ppts alkaloid but not the salts
Aspidospermine	Mandelin = lt P Δ yR Δ PR.—Hot HCl = R.— $\text{K}_2\text{Cr}_2\text{O}_7$ = rBr Δ dkG.— $\text{HgI}_2.2\text{KI}$ = Y flocks.—Picric acid = Y ppt.
Cotarnine	HNO_3 = R.— H_2PtCl_6 = Y ppt.—Ferrous salts & CuSO_4 give ppts
Digitoxin	Fröhde = Br.—Mandelin = VBr.—Mecke = VBr.—Marquis = Br.
Ephedrine	Millon ($\text{Hg}[\text{NO}_3]_2$), $\text{AuCl}_3.\text{HCl}$, H_2PtCl_6 , & $\text{BiI}_3.4\text{KI}$, afford charact. cryst. ppts
Ergotinine	H_2SO_4 = Y Δ VBl.—Gives ppts w. I.KI, $\text{HgI}_2.2\text{KI}$, picric acid, & tannin
Homatropine	Evap'g then add'g alcoh. KOH = Y.— $\text{HgI}_2.2\text{KI}$ = wh. ppt.—Picric acid = Y ppt.—Alcoh. solut. HgCl_2 w. free base = R.
Pelletierine	$\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = G.— $\text{AuCl}_3.\text{HCl} + \text{heat}$ = Au ppt (reduction).—Tannin = ppt sol. in excess
Picrotoxin	H_2SO_4 = Y.— $\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7$ = V.— $\text{H}_2\text{SO}_4 + \text{KNO}_3 + \text{excess Na}_2\text{CO}_3$ = vermilion R.—Reduces Fehling's soln.—Fröhde = Or.—Mandelin = gY.—Marquis = lt ch R.
Salicin	H_2SO_4 = R, & R ppt forms on add'g water.—Fröhde = V Δ dk ch.— $\text{H}_2\text{SO}_4 + \text{K}_2\text{Cr}_2\text{O}_7 + \text{heat}$ = odor of salicylaldehyde.
Theophylline	H_2SO_4 = Y Δ Or Δ blood R.—Evap'd w. Cl-water = bright R Δ V by NH_4OH .

Characteristic Reactions of Acids, Bases, Metals, & Salts

Acetates & Acetic Acid

Acetates

(1) H_2SO_4 liberates acetic acid (charact. odor).—(2) Heated w. H_2SO_4 & alcohol ethyl acetate is formed (charact. odor).—(3) FeCl_3 colors neutral soluts deep red, decolorized by mineral acids but not by HgCl_2 (diff. fr. SCN); on diluting solut. & boil'g basic iron acetate pptd.—(4) Heated w. As_2O_3 yields cacodyl (poisonous gas of repulsive odor).

Acid

(1) Charact. odor.—(2) Same as No. 2 above.—(3) Neutralized with NaOH responds to reactions given in (3).

Aluminum

Salts

(1) NH_4OH ppts wh. $\text{Al}(\text{OH})_3$ pract. insol. in excess.—(2) Alkali hydroxides or sulphides ppt. $\text{Al}(\text{OH})_3$ sol. in excess.—(3) $\text{Na}_2\text{S}_2\text{O}_3$ or NaNO_2 ppts wh. $\text{Al}(\text{OH})_3$ on boil'g.—(4) Before blowpipe on charcoal w. Na_2CO_3 yields a wh. infus. oxide which when moistened w. $\text{Co}(\text{NO}_3)_2$ & again ignited yields a blue mass (Thenard's blue).—(5) In v. dil. soluts of Al salts weakly acid w. acetic acid or made so by the add'n of an acetate, tetraoxanthraquinone [1 : 2 : 5 : 8] (0.1% solut. in alcohol) produces a violet ppt.—(6) A slt. excess of a 5% solut. of *o*-hydroxyquinoline in 2*N* acetic acid gives a ppt in a sltly acid solut. cont'g Al on the add'n of excess of 2*N* ammon. acetate (diff. fr. Be).

Metal

Solut. in HCl or H_2SO_4 responds to (1) & (2).

Ammonium

Salts

(1) With alkali or alkaline earth hydroxides or by boil. w. alkali carbonates NH_3 is evolved, recognizable by its odor, blueing of red litmus paper, blackening of HgNO_3 , & giving white fumes w. HCl .—(2) Nessler's solut. (HgI_2 + KI + NaOH) ppts fr. dil. solut. of NH_4 salts, yellow or brown NH_2I .

Antimony

Salts

(1) Orange red ppt. w. H_2S in moder. acid solut.; ppt. sol. in alkali hydroxides, NH_4OH , or their sulphides, strong HCl , but not in ammonium carbonate (diff. fr. As_2S_3).—(2) Nascent H (Zn + H_2SO_4) yields SbH_3 . When the gas is ignited & the flame made to impinge on cold porcelain, the SbH_3 appears as a black spot which does not diss. in solut. of sod. hypochlorite (diff. from As).

Antimonic

Affords reactions (1) & (2); reduces KI in acid soluts w. liber'n of I (diff. fr. Sb^{+++}).

Antimonous

Responds to reactions (1) & (2); in alkaline solut. reduces mercuric to mercurous.

Metal

Dissolved in HCl w. a little HNO_3 or KClO_3 gives the reactions (1) & (2).

Arsenic

Salts

(1) H_2S ppts fr. strong HCl solut. yellow As_2S_3 sol. in alkali or ammonium hydroxides, their carbonates (diff. fr. Sb), & sulphides.—(2) Nascent H produces AsH_3 which darkens AgNO_3 paper, colors HgCl_2 or HgBr_2 paper yellow to orange (black w. much arsenic), or when ignited, deposits on a cold glass or porcelain surface a mirror sol. in sodium hypochlorite (diff. fr. Sb).—(3) SnCl_2 develops in acid solution a coffee-brown ppt.—(4) In acid solution coats bright copper gray.

Arsenates

Arsenates in acid solutions give the reactions (1), (2), (3), & (4) above.—(5) Liberates I fr. KI .—(6) AgNO_3 produces in neutral solution a red-brown ppt. of silver arsenate (diff. fr. arsenites) sol. in HNO_3 & NH_4OH .—(7) Magnesia mixture gives a wh. ppt. (diff. fr. arsenite).

Arsenites

In acid solution give reactions (1), (2), (3), & (4) above.—(5) AgNO_3 produces a yellow ppt. (diff. fr. arsenate).—(6) Not pptd by magnesia mixture.—(7) Solutions made alkaline with a bicarbonate absorb iodine.

Metal

The metal evap'd w. HNO_3 yields reactions described under Arsenates.

Barium

Salts

(1) H_2SO_4 or a solub. sulphate ppts wh. BaSO_4 insol. W., HCl , or HNO_3 .—(2) K_2CrO_4 ppts yellow BaCrO_4 (diff. fr. Ca & Sr) which is only sltly sol. in acetic acid & insol. in NaOH (diff. fr. Pb).—(3) Nonluminous flame is colored green by Ba salts moistened w. HCl .

Benzoates & Benzoic Acid

Benzoates

(1) FeCl_3 ppts fr. neutr. solut. flesh colored ferric benzoate.—(2) Mineral acids afford a wh. ppt. of benzoic acid sol. in hot W., C., or E.

Acid

(1) Melts at 120° – 122° C.—(2) Sublimes when heated in tube open at both ends.—(3) When neutralized w. NH_4OH responds to (1) under benzoates.

Bismuth

Salts

(1) When diss. in a slt excess HCl or HNO_3 & dil'd w. much W. a wh. ppt. is formed which is blackened by H_2S (diff. fr. Sb), & sol. in warm moder. dil. HNO_3 .—(2) SnCl_2 + KOH ppts black metal Bi.

Metal

Dissol. in sl't excess HNO_3 responds to (1) & (2) above.

BICARBONATES—see Carbonates

Borates & Boric Acid

(1) Mixed w. H_2SO_4 & A. & ignited burn with green-edged flame.—(2) Solut. mixed with HCl turns turmeric paper reddish-brown after drying, the color changing to greenish-black after moist'g w. alkali hydroxides or NH_4OH .

Bromates

(1) Solut. SO_2 added in small portions develops a yellow color & odor of Br (dissolves by shaking w. C, coloring latter red to reddish-brown), the color disappearing on adding excess SO_2 .—(2) When strongly ignited oxygen is evolved (recognizable by causing a glowing wood splinter to blaze), a res. of bromide remaining (see Bromides).—(3) HCl liberates Br.

Bromides

(1) Cl-water liberates Br fr. bromides (brown solut. w. CS_2 or CHCl_3 ; orange color with starch) the color being discharged by excess Cl.—(2) AgNO_3 ppts yellowish-wh. AgBr, insol. HNO_3 & only sltly sol. in dil. NH_4OH .—(3) Heating w. $\text{K}_2\text{Cr}_2\text{O}_7$ & conc. H_2SO_4 red fumes (brown distillate).

Cadmium*Salts*

(1) In neutr. alkal. or moder. acid solutions H_2S ppts yellow CdS insol. alkalies or alkali sulphides or cold moder. dil. HCl or H_2SO_4 , but sol. in the hot acids.—(2) KOH or NaOH ppts wh. $\text{Cd}(\text{OH})_2$ insol. excess.—(3) NH_4OH ppts wh. $\text{Cd}(\text{OH})_2$ sol. excess.—(4) KCN ppts wh. $\text{Cd}(\text{CN})_2$ eas. sol. excess.

Metal

Solution in HNO_3 responds to the above reactions.

Calcium*Salts*

(1) Oxalic acid or solub. oxalates ppt. wh. calcium oxalate, insol. in acetic but sol. in HCl.—(2) Moistened with HCl, Ca salts color a nonluminous flame yellowish-red.—(3) Ammon. carbonate ppts wh. CaCO_3 .—(4) Add'n of excess sat. solut. $\text{K}_4\text{Fe}(\text{CN})_6$ to a moderately conc. solut. affords a yellowish ppt. of $\text{K}_2\text{CaFe}(\text{CN})_6$.

Carbolates

(1) FeCl_3 produces a violet color.—(2) Heated w. H_2SO_4 gives a phenol odor.—(3) Heated with H_2SO_4 & resorcin for a few minutes at 120°C ., then treated w. excess NaOH, a deep red color develops.—(4) With excess of Br-water a wh. precip. of tribromophenol forms.—(5) Solut. + few drops NH_4OH + a little Br-water affords a deep blue color.

Carbonates, Bicarbonates, & CO_2 *Carbonates & Bicarbonates*

Are decomposed by acids w. effervescence; the escaping gas yields a wh. ppt. w. $\text{Ca}(\text{OH})_2$ or $\text{Ba}(\text{OH})_2$ solution.

Carbonates

Give w. HgCl_2 a reddish brown ppt.

Bicarbonates

Give w. HgCl_2 a white ppt.

 CO_2

(1) Gives w. $\text{Ca}(\text{OH})_2$ or $\text{Ba}(\text{OH})_2$ a wh. ppt. of CaCO_3 or BaCO_3 .

Cerium*Ceric Salts*

(1) Salts are usually orange red (cerous, white).—(2) Liberate I fr. KI.—(3) Reduced by SO_2 , H_2S , H_2O_2 , becoming cerous.

Cerous Salts

(1) Salts are usually white (diff. fr. ceric).—(2) Alkalies & NH_4OH & $(\text{NH}_4)_2\text{S}$ ppt. wh. $\text{Ce}(\text{OH})_3$, insol. in excess of reagent (diff. fr. Al & Be); the ppt. grad. becomes yellow in air, due to oxidation.—(3) Oxalic acid or ammonium oxalate ppts $\text{Ce}_2(\text{C}_2\text{O}_4)_3$, insol. in dil. mineral acids.

Cesium*Salts*

(1) H_2PtCl_6 ppts CsPtCl_6 (brighter in color & more insol. in W. than corresp. K salt).—(2) Tartaric acid ppts wh. $\text{CsHC}_4\text{H}_4\text{O}_6$.—(3) Color nonluminous flame reddish violet.

Chlorates

(1) On heating oxygen evolved (test w. glowing match) leaving a res. of chloride.—(2) Conc. H_2SO_4 decomposes w. liberation of greenish-yellow chlorine oxide gas.—(3) Conc. HCl decomposes w. liberation of Cl.—(4) Boiled w. FeSO_4 & dil. H_2SO_4 , reduced to chloride (diff. fr. perchlorates).

Chlorides, Chlorine, and Hydrochloric Acid*Chlorides*

(1) Heated with MnO_2 and H_2SO_4 , Cl is liberated (recog. by its greenish-yellow color, charact. odor & reactions).—(2) AgNO_3 ppts wh. AgCl sol. in NH_4OH but not in HNO_3 .—(3) HgNO_3 ppts HgCl.

Chlorine

(1) Yellowish-green gas, w. charact. odor.—(2) Liberates I fr. iodides, Br fr. bromides.—(3) Decolorizes indigo & other dyes.

Hydrochloric Acid

(1) Heated w. MnO_2 , Cl is liberated. Other reactions as above under chlorides.

Chromates and Dichromates*Chromates*

(1) Solut. of sol. chromates become reddish w. acid.—(2) The red soluts turn green w. SO_2 , A., H_2O_2 , H_2S .—(3) The sltly acidul. solut. (w. H_2SO_4) yields, w. H_2O_2 a blue color, which passes into ether when shaken with it.—(4) Pb & Ba salts ppt. yellow chromates, insol. or only sltly sol. in acetic acid but sol. in HNO_3 .—(5) AgNO_3 ppts brownish-red Ag_2CrO_4 .

Dichromates

(1) Solub. dichromates are yellowish red.—(2) Their yellowish-red soluts bec. yellow w. alkali hydroxides.—Also affords reactions (2) & (5) above.

Chromium*Salts*

(1) Chromium salts are us'ly green or violet green.—(2) Alkali or NH_4OH ppts green $\text{Cr}(\text{OH})_3$ only sltly sol. in excess NH_4OH , or sol. in excess NaOH .—(3) Solut. made alkaline w. NaOH becomes yellow w. H_2O_2 .

Citrates and Citric Acid*Citrates*

(1) Neutral soluts of citrates are not affected in the cold by CaCl_2 ; on heating a wh. ppt. forms.—(2) Mix a solut. of the citrate w. abt $1/10$ th its vol. of mercuric sulphate solution, heat & add KMnO_4 —a wh. ppt. forms.—(3) To the solution of the citrate add some dil. H_2SO_4 & NaBr , warm to abt 50°C ., add excess KMnO_4 solut. & discharge the dark color w. FeSO_4 solut.—a wh. ppt. of pentabromacetone forms.

Cobalt*Salts*

(1) Hydrated Co (ous) salts are usually red.—(2) Red solut. becomes blue on add'n of conc. HCl .—(3) Color borax bead blue.—(4) KNO_2 & acetic acid ppt. yellow potass. cobaltic nitrite.—(5) With conc. solut. of KSCN a deep blue color develops.—(6) dimethylglyoxime gives a brown color in Co soluts acidified w. acetic acid & sod. acetate.

Copper*Cupric Salts*

(1) Most cupric salts are blue or green & diss. in NH_4OH forming a blue solut.—(2) NaOH ppts green $\text{Cu}(\text{OH})_2$, chang'g to black on moderate warming.—(3) $\text{K}_4\text{Fe}(\text{CN})_6$ produces a brownish-red ppt.—(4) Al, Fe, or Zn, ppts metal Cu fr. soluts of Cu salts.—(5) H_2S or soluble sulphides ppt. black CuS soluble in NaCN .—(6) Cu salts moistened w. HCl color the nonluminous flame green.

Cuprous Salts

(1) Cuprous salts are generally wh. or nearly so.—(2) With NaOH yellow CuOH is formed changing to red Cu_2O on boiling.—(3) When oxidized w. HNO_3 or Br or $\text{HCl} + \text{KClO}_3$, they respond to the reactions under *Cupric*.

Cyanates

(1) H_2SO_4 liberates cyanic acid having an irrit. odor but rapidly decomposing into CO_2 & NH_3 .—(2) In soluts of water-soluble cyanates AgNO_3 ppts wh. silver cyanate sol. in dil. HNO_3 , (diff. fr. AgCN).—(3) Cobalt acetate colors soluts of soluble cyanates a deep blue.

Cyanides

(1) Acids liberate HCN (character. odor).—(2) Treated w. NaOH & FeSO_4 then w. FeCl_3 & made acid w. HCl , a deep blue ppt. of Prussian blue is formed.—(3) Evap'd to dryness w. a little $(\text{NH}_4)_2\text{S}$, then a little HCl & a small quant. of FeCl_3 solut. added, a blood red color develops.

DICHROMATES—see under Chromates

Ferricyanides

(1) Solub. ferricyanides are usually red & give an orange red solution.—(2) With ferrous salts they give a blue ppt. of Turnbull's blue.—(3) With ferric salts a brown color develops but no ppt.—(4) In the presence of HCl they liberate I from iodides.

Ferrocyanides

(1) With ferric salts a blue ppt. of Prussian blue is formed.—(2) With CuSO_4 or uranyl salts reddish-brown or brownish-red ppts of the respective ferrocyanides form.

Fluorides & Hydrofluoric Acid*Salts*

(1) A solution of a soluble fluoride slowly corrodes glass.—(2) The gas liberated by treating a fluoride w. conc. H_2SO_4 rapidly etches glass.—(3) A fluoride mixed with silicic acid & treated with conc. H_2SO_4 evolves gaseous H_2SiF_6 which when passed into H_2O forms a ppt. of SiO_2 .—(4) CaCl_2 produces a wh. ppt. of CaF_2 alm. insol. in acetic acid & sltly sol. in dilute HCl .

Acid

Hydrofluoric acid rapidly etches glass & gives reactions (3) and (4).

FLUOSILICATES—see Silicofluorides

Formates & Formic Acid*Salts*

(1) Aqueous soluts warmed w. AgNO_3 ppt. dark Ag metal.—(2) Warmed w. HgCl_2 a wh. ppt. of HgCl is formed.—(3) With FeCl_3 a red color, discharged by mineral acids.

Acid

Formic acid gives reactions (1) & (2) & when neutralized responds to (3).

Gold (Auric)*Salts*

(1) NaOH ppts reddish brown auric hydroxide sol. in excess.—(2) Ferrous salts or oxalic acid ppt. metallic Au (diff. fr. Pt).—(3) H_2O_2 in alkaline solut. ppts metal Au.—(4) SnCl_2 gives a brown ppt. fr. conc. soluts, or a purple fr. dil. soluts.—(5) A solut. of benzidine (0.1 Gm. + 10 cc. 50% acetic acid) yields w. v. dil. Au soluts a clear blue color changing to a violet shade.

Hydroxides

(1) Soluts of sol. hydroxides are strongly alkaline to indicators.—(2) On treating mod. conc. solut. w. an acid (HCl , HNO_3 , or H_2SO_4) much heat is evolved.—(3) Afford a yellow ppt. w. HgCl_2 (NH_4OH gives a wh. ppt. & blackens HgCl).

Hypochlorites

(1) With HCl , Cl is evolved, recog. by character. odor and o. reactions (see Chlorine).—(2) In weakly alkaline solut. starch iodide is blued.—(3) On shaking w. metal Hg brown mercuric oxychloride forms (diff. fr. Cl).

Hypophosphites & Hypophosphorous Acid

(1) When ignited phosphine (PH_3) is evolved which ignites spontaneously in the air.—

(2) On acidul. w. H_2SO_4 & warm'g w. solut. CuSO_4 a red ppt forms.

Iodates & Iodic Acid

(1) A little SO_2 added to an iodate solut. liberates I (colors starch solut. blue or CHCl_3 violet-red).

Iodides & Hydriodic Acid

(1) With FeCl_3 , NaNO_2 + acid, or a little Cl -water, I is liberated (colors starch blue, or CHCl_3 violet-red).—(2) With HgCl_2 yield a red ppt. sol. in excess iodide solut.—(3) With AgNO_3 afford a yellow ppt. insol. in HNO_3 , & only v. sltly sol. in NH_4OH .

Iridium

Salts

(1) NaOH produces a green color which on boiling changes to red & finally to blue.—(2) KCl ppts brownish black K_2IrCl_6 .—(3) NH_4Cl ppts dark red $(\text{NH}_4)_2\text{IrCl}_6$.

Iron

Ferric Salts

(1) NH_4OH or alkali hydroxide ppts brown $\text{Fe}(\text{OH})_3$ insol. in excess.—(2) $\text{K}_4\text{Fe}(\text{CN})_6$ gives a dark blue ppt. of Prussian blue.—(3) With $\text{K}_3\text{Fe}(\text{CN})_6$ a brown color, but no ppt.—(4) KSCN gives a deep red color.—(5) With solub. salicylates a blue violet color is produced.—(6) Dil. soluts boiled w. excess sodium acetate give a red-brown ppt. of basic iron acetate.

Ferrous Salts

(1) Alkali hydroxide gives a wh. ppt. of $\text{Fe}(\text{OH})_2$ rapidly darkening in the air.—(2) $\text{K}_3\text{Fe}(\text{CN})_6$ produces a dark blue ppt.

Lactates & Lactic Acid

(1) Warmed w. a little H_2SO_4 & KMnO_4 , the odor of benzaldehyde is evolved.—(2) Heated w. conc. H_2SO_4 , CO is evolved.

Lead

Salts

(1) H_2SO_4 or solub. sulphates ppt. PbSO_4 solub. in NaOH & blackened by H_2S .—(2) Alkali hydroxides ppt. $\text{Pb}(\text{OH})_2$ sol. in excess.—(3) Potass. chromate or dichromate ppts PbCrO_4 insol. in acetic acid, but sol. in alkali hydroxides.

Lithium

Salts

(1) In not too dil. solut. of Li salts sod. phosphate or carbonate gives a wh. ppt.—(2) Li salts color a nonluminous flame carmine red.—(3) H_2SO_4 or sol. sulphates afford no ppts (diff. fr. Sr).

Magnesium

Salts

(1) Alkali or ammonium hydroxide ppt. wh. $\text{Mg}(\text{OH})_2$ insol. excess (pptn is prevented by the presence of much ammonium salts).—(2) Ammonium carbonate affords no ppt in cold soluts even on standing f. some time,

but on subsequently adding sodium phosphate, a wh. ppt. immed. forms.

Manganese

Salts

(1) Fused w. NaOH + KNO_3 a green mass forms sol. in W. w. a green color.—(2) Boiled w. HNO_3 or H_2SO_4 + PbO_2 a purple color develops.—(3) NaOH produces w. Mn^{++} salts a wh. ppt. rapidly turning brown in the air.—(4) Solub. sulphides afford a salmon colored ppt. of MnS .—(5) In the borax or microcosmic-salt bead give an amethyst red color in the oxidizing flame, colorless in a reducing flame.

Mercury

Salts

(1) Heated w. Na_2CO_3 metal. Hg forms.—(2) Cu , Fe , or Zn , ppt. metal. Hg fr. soluts not too strongly acid.—(3) In the presence of alkali, formaldehyde or H_2O_2 ppt. metallic Hg on warming.

Mercuric Salts

(1) Yields reactions (1), (2) & (3) above.—(4) NaOH affords a yellow ppt. of HgO insol. in excess.—(5) Solub. iodides afford a red ppt. sol. in excess.—(6) NH_4OH affords a wh. ppt.

Mercurous Salts

(1) Yields reactions (1), (2) & (3) above.—(4) Blackened by alkali hydroxide or NH_4OH .—(5) HCl or a sol. chloride ppts wh. HgCl .

Metaphosphates

(1) Albumin is pptd by soluts of metaphosphates (diff. fr. ortho & pyro acids).—(2) With AgNO_3 a wh. ppt. is formed (diff. fr. ortho).—(3) With ammon. molybdate no ppt. is formed in the cold, but on boil., or if the metaphosphate was first fused w. Na_2CO_3 , a yellow ppt. of ammon. phosphomolybdate is formed.

Molybdates

(1) Evaporated w. conc. H_2SO_4 almost to dryness, an intense blue mass is obtained.—(2) In HCl soluts Zn or SnCl_2 colors the solut. blue, green & finally brown.—(3) KSCN w. Zn or SnCl_2 develop a blood-red color.—(4) Treated w. NaNO_3 & Na_2HPO_4 added a yellow ppt. is produced.

Nickel

Salts

(1) NaOH ppts green $\text{Ni}(\text{OH})_2$ insol. in excess.—(2) NaCN produces an apple green ppt. sol. in excess.—(3) In neutral or alkaline solut. dimethylglyoxime or alphabenzil-dioxime affords a red ppt.

Nitrates

(1) Heated w. conc. H_2SO_4 the charact. odor of HNO_3 is evolved.—(2) Heated w. H_2SO_4 & a piece of Cu metal, brown fumes of NO_2 are evolved.—(3) Mixed w. conc. H_2SO_4 & solut. FeSO_4 carefully added a brown ring is formed at the zone of contact.—(4) Evap'd

w. phenoldisulphonic acid, then treated w. a little water & made alkaline w. NH_4OH , a deep yellow solut. results.—The free acid when heated w. Cu metal evolves brown fumes. It also gives reactions (3) & (4).

Nitrites

(1) Acids, including acetic, liberate NO, changing to brown NO_2 in the air.—(2) Treated w. KI, starch, & acetic acid a blue color is produced.—(3) With α -naphthylamine & sulphanilic acid a deep red color is produced.

Oxalates & Oxalic Acid

An oxalate or oxalic acid mixed w. acetic acid & solut. calcium acetate added affords a wh. ppt. which does not appreciably char on ignition, leaving a res. of CaCO_3 or CaO (depending on the temperature of ignition).—(2) Acidul'd w. an acid decolorize permanganate.—(3) Warmed w. conc. H_2SO_4 , CO & CO_2 are evolved.

Palladium (Palladous)

Salts

(1) NaOH ppts brown basic salt.—(2) Na_2CO_3 yields a brown ppt., sol. in excess, but reprecipitates on boil.—(3) NH_4OH yields a flesh colored ppt. sol. in excess.—(4) KI ppts black palladous iodide sol. in excess KI or NH_4OH .

Perborates

(1) Give the reaction w. CrO_3 described under the Peroxides.—(2) Afford the reactions of Borates (*q.v.*)

Permanganates

(1) Solut. are violet red; when acidulated w. an acid the color is discharged by reducing agents (H_2S , SO_2 , FeSO_4 , oxalic acid, A., etc.), & also by H_2O_2 .—(2) Evolve Cl when heated w. HCl.

Peroxides

(1) Sltly. acidul. w. H_2SO_4 & $\text{K}_2\text{Cr}_2\text{O}_7$ added a deep blue color is produced, & if immed. shaken w. ether the blue color passes into the ether.—(2) In acid solut. titanium sulphate is colored yellow.—(3) Acidulated & KI & starch added, a deep blue color is produced.—(4) In alkaline solut. Au & Hg salts are reduced to metal.

Persulphates

(1) AgNO_3 ppts black Ag_2O .—(2) In alkaline solut. salts of Co, Mn, Ni, & Pb are pptd as black peroxides.—(3) Do not decolorize KMnO_4 or give a blue color w. $\text{K}_2\text{Cr}_2\text{O}_7$ (diff. fr. peroxides).

PHENATES—see Carbolates

Phosphates (Ortho)

(1) AgNO_3 gives a yellow ppt. of Ag_3PO_4 solub. in HNO_3 & NH_4OH .—(2) Ammonium molybdate gives a yellow ppt. sol. in alkali & NH_4OH .—(3) Magnesia mixture gives wh. ppt. of magnesium ammonium phosphate.—

Phosphoric acid yields reaction (2), & when neutralized yields reactions (1) & (3).

Phosphites

(1) BaCl_2 or $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$ produce a wh. ppt. (diff. fr. hypophosphites).—(2) HgCl_2 is reduced on warming to mercurous, & w. an excess of the phosphite is reduced to metal.—(3) On ignition phosphine is evolved.

Platinum (Platinic)

Salts

(1) NH_4Cl or KCl affords a yellow ppt. in not too dil. solut.—(2) Zn or boiling w. a formate, reduces to metal.—(3) Warmed w. NaOH & G. the black metal is pptd.—(4) Not reduced to metal in acid solut. by FeSO_4 or oxalic acid (diff. fr. gold).

Potassium

Salts

(1) Sodium bitartrate develops in not too dil. solut. a wh. ppt. of potassium bitartrate insol. in acetic acid.—(2) Soluble perchlorates in not too dilute solut. ppt. wh. KClO_4 .—(3) Platinic chloride affords in moderately conc. solut. a yellow ppt.—(4) Treated w. NaNO_2 , CoCl_2 , & acetic acid a yellow ppt. is produced.—(5) K salts color a non-luminous flame violet.

Pyrophosphates

(1) Fused w. Na_2CO_3 , orthophosphate is formed yielding the reaction described under the phosphates.—(2) Acidulated solut. do not ppt. albumin (diff. fr. *meta*).—(3) With AgNO_3 a wh. ppt. is formed (diff. fr. *ortho*).—(4) With ammonium molybdate no ppt. is formed in the cold, but on warming a yellow ppt. is produced.

Salicylates

(1) Intense violet color w. FeCl_3 .—(2) Heated w. H_2SO_4 & methyl alcohol the odor of oil of wintergreen is evolved.—(3) Addition of acids to moder. dil. solut. of salicylates ppt. salicylic acid.

Selenium

Selenium comp'ds heated w. Na_2CO_3 on charcoal evolve the odor of decayed radishes.

Selenites

(1) In presence of HCl, are reduced by SO_2 , SnCl_2 , or FeSO_4 to red Se changing to black by heating. The metallic Se thus obtained diss. in cold conc. H_2SO_4 giving a green solut. (diff. fr. Te which gives a red color), but on diluting w. W. red Se is pptd.

Selenates

(1) With BaCl_2 a wh. ppt. is produced insol. in W. or dil. HCl.—(2) Boiled w. HCl, Cl is evolved.—(3) Not reduced by SO_2 or SnCl_2 (diff. fr. selenites).

Silicofluorides (Fluosilicates)

(1) Warmed w. conc. H_2SO_4 in a Pb or Pt cruc., SiF_4 & HF are evolved, which etch glass & cause a drop of water held on a glass

rod to become turbid.—(2) In moder. conc. soluts, K salts develop a wh. ppt. of K_2SiF_6 .—(3) Decomp. by NH_4OH w. separ. of SiO_2 .

Silver

Salts

(1) HCl or sol. chlorides ppt. wh. $AgCl$ insol. in HNO_3 but sol. in NH_4OH & becoming violet on expos. to light.—(2) $NaOH$ ppts brown Ag_2O insol. in excess.—(3) Na_2HPO_4 gives a yellow ppt. of Ag_3PO_4 eas. sol. in HNO_3 or NH_4OH .

Sodium

Salts

(1) Color nonluminous flame intensely yellow.—(2) Potass. pyroantimoniate develops in not too dilute soluts a wh. ppt. of sodium pyroantimoniate.—(3) Excess of solut. uranyl-zinc acetate affords a ppt. of uranyl-sodium-zinc acetate. (The reagent solut. is made as follows: [a] Uranium acetate 10 Gm.; 36% acetic acid 5 cc.; water 50 cc.—[b] Zinc acetate 30 Gm.; 36% acetic acid 3 cc.; water 32 cc. The two soluts are mixed while warm; the mixture is allowed to stand f. 24 hrs & is then filtered).

Strontium

Salts

(1) Moistened w. HCl color a nonluminous flame deep crimson.—(2) In neutral or sltly acid soluts dil. H_2SO_4 or sol. sulphates ppt. wh. $SrSO_4$.

Sulphates

(1) $BaCl_2$ ppts wh. $BaSO_4$ insol. in W. & pract. insol. in acids.—(2) Sulphates heated w. Na_2CO_3 on charcoal are reduced to sulphides which when moistened blacken silver coin & evolve H_2S w. acids.—The conc. acid, or the dil. acid evaporated, chars paper, sugar, & o. organic matter.

Sulphides

(1) Decomposed by acids w. evolution of H_2S (recog. by its odor & blacken'g Ag & Pb salts).—(2) Sodium nitroprusside added to solut. made alkaline w. $NaOH$ develops a purple violet color.—(3) Soluble sulphides give a yellow ppt. w. Cd salts & a wh. ppt. w. Zn salts.—(4) Insoluble sulphides when fused w. $NaOH$ & moistened w. W. blacken bright metal. Ag & give the reactions described above.

Sulphites

(1) Acids liberate SO_2 gas having charact. pungent odor & blacken'g $HgNO_3$.—(2) Added to nitroprusside cont. $ZnSO_4$ a red color develops.—(3) Zn in acid solut. reduces sulphides to H_2S (recog. by its odor & blacken'g lead acetate paper).

Sulphocyanates

(1) $FeCl_3$ gives a blood-red color not destroyed by HCl but decolorized by $HgCl_2$.—(2) With $CuSO_4$ a black ppt. is produced changed to wh. by SO_2 .—(3) $AgNO_3$ gives a wh. ppt. insol. in dil. HNO_3 .

Tartrates

(1) In not too dil. soluts potass. acetate develops a wh. ppt. of potass. biartrate insol. in acetic acid but sol. in mineral acids & alkali & ammonium hydroxides or carbonates.—(2) In neutral solut. $AgNO_3$ develops a wh. ppt. which when diss. in just sufficient NH_4OH & warmed deposits metal. Ag on the sides of the test tube, forming a mirror.—(3) When a drop of solut. $FeSO_4$ followed by a few drops of H_2O_2 are added, & then an excess of $NaOH$, to a solut. of the acid or to a solut. of the tartrate acidified w. acetic acid, a purple or violet color develops.

Tellurium

Tellurites

(1) H_2S ppts fr. acid soluts brown TeS_2 sol. in $(NH_4)_2S$.—(2) SO_2 or $SnCl_2$ ppts black Te fr. weakly acid soluts. When the Te thus obt. is diss. in conc. H_2SO_4 a carmine red color develops (diff. fr. Se which gives a green color). On diluting w. W. the black Te is repptd.—(3) From moder. dil. soluts HCl ppts wh. tellurous acid.—(4) $FeSO_4$ does not reduce Te salts (diff. fr. Se).

Tellurates

(1) In hot soluts of tellurates SO_2 or $SnCl_2$ produces the same effect as (2) under tellurites.—(2) On boiling w. HCl , Cl is evolved.—(3) HCl does not give a ppt.

Thallium

All thallium salts color a nonluminous flame emerald green.

Thallous Salts

(1) HCl ppts wh. $TlCl$ (diff. fr. thallic).—(2) Sol. iodides ppt. yellow TlI .—(3) With K_2CrO_4 a yellow ppt. of thallous chromate is formed.—(4) Not pptd by $NaOH$ (diff. fr. thallic).—(5) Yields no ppt. w. sulphates (diff. fr. Pb or Ba).

Thallic Salts

(1) Alkali & ammonium hydroxides & carbonates produce a brown ppt. of $Tl_2(OH)_3$.—(2) K_4FeCN_6 gives a yellow ppt. becoming green when heated.—(3) KI reduces to TlI w. liberation of I .—(4) Give no ppt. w. HCl (diff. fr. thallous).

Thiosulphates

(1) With HCl or H_2SO_4 a wh. ppt. of sulphur is formed which soon turns yellow & SO_2 is liberated (recog. by its odor).—(2) Addition of $FeCl_3$ develops a dark yellow color which quickly disappears.

Thorium

Salts

(1) Alkali & ammonium hydroxides or $(NH_4)_2S$ give a wh. ppt. of $Th(OH)_4$ insol. in excess.—(2) Alkali carbonates develop a wh. ppt. sol. in excess.—(3) With ammonium carbonate a wh. ppt. is formed sol. in excess but repptd on warming to about $50^\circ C.$, & rediss. on cooling.—(4) Oxalic acid or ammonium oxalate gives a wh. ppt. sol. on boiling w. excess $(NH_4)_2C_2O_4$.

Tin*Salts*

(1) Metal. Zn added to a solut. of tin salts acidified w. HCl deposits the tin as metal. When the pptd metal (including the zinc) is diss. by heat. w. HCl the resulting solut. gives a wh. or gray ppt. w. HgCl_2 .

Stannous

(1) H_2S ppts brown SnS sol. in conc. HCl, in alkali sulphides, or yellow ammonium sulphide.—(2) HgCl_2 is reduced to wh. HgCl or to gray metal. Hg.—(3) With dil. solut. of gold chloride a purple ppt. (purple of Cassius) is produced.

Stannic

(1) Yield the reaction w. Zn as described above.—(2) Do not reduce HgCl_2 but will do so after warming w. a little metal. Zn.—(3) H_2S produces a yellow ppt. of SnS_2 sol. in conc. HCl & in alkali & ammonium sulphides.

Titanium*Salts*

(1) H_2O_2 or persulphates in acid sol. develop a yellow to orange red color.—(2) Tannic acid gives a brown ppt. becoming orange.—(3) Zn or Sn in HCl solut. produces a HCl solut. of Ti salts violet in color.—(4) On continued heating a borax bead in the reducing flame, the bead is yellow while hot, violet when cold.

Tungstates

(1) Cold mineral acids ppt. wh. tungstic acid changing to yellow on boiling.—(2) HCl & Zn give a ppt. soon turning blue.—(3) SnCl_2 gives a yellow color but on subsequent add'n of HCl a blue ppt. is formed.—(4) Microcosmic bead is colorless in oxidizing

& blue in reducing flame, becoming blood-red on adding a little FeSO_4 .

Uranium*Salts*

(1) Alkali & ammonium hydroxides ppt. yellow alkali or ammonium uranate.—(2) Alkali carbonates ppt. fr. conc. soluts yellow alkali uranyl carbonate.—(3) $(\text{NH}_4)_2\text{S}$ ppts brown uranyl sulphide sol. in ammonium carbonate.—(4) With K_4FeCN_6 a brown-red ppt. of uranyl ferrocyanide is formed.—(5) The borax bead is yellow in the oxidizing flame & green in the reducing flame.

Vanadates

(1) $(\text{NH}_4)_2\text{S}$ causes no pptn, but on adding HCl a brown ppt. is formed which diss. in alkali hydroxides, carbonates, or sulphides, to a brown solut.—(2) H_2S , oxalic or tartaric acid, & o. reducing agents develop in acid soluts of vanadates a blue color.—(3) H_2O_2 in acid solut. develops a red color.—(4) The borax bead is colorless or yellow in the oxidizing flame & green in the reducing flame.

Zinc*Salts*

(1) In alkaline soluts H_2S produces a wh. ppt. of ZnS insol. in acetic acid but sol. in dil. HCl. A similar ppt. is produced by alkali & ammonium sulphides in neutral soluts.—(2) K_4FeCN_6 gives a wh. ppt. of zinc ferrocyanide insol. in dil. HCl.—(3) With alkali & ammonium hydroxides a wh. ppt. is formed sol. in excess.—(4) Heated on charcoal w. a little Na_2CO_3 moistened w. a drop of $\text{Co}(\text{NO}_3)_2$ solut. & again heated a green color is produced.

Metric Equivalents

WEIGHTS AND MEASURES, AREAS, ETC.

Linear

1 inch	= 25.400 Mm.
1 ft.	= 0.3048 meter
1 yd.	= 0.9144 meter
1 mile	= 1.6093 kilomet.

1 Mm.	= 0.03937 in.
Millimeters ÷ 25.4	= in.
1 Cm.	= 0.3937 in.
Cm. ÷ 2.54	= in.
1 meter	= 39.3704 in.
1 meter	= 3.2808 ft.
1 meter	= 1.0936 yd.
1 kilomet.	= 0.6214 mile
Kilometers ÷ 1.6093	= miles
1 kilomet.	= 3280.83 ft.

Square

1 sq. in.	= 6.452 sq. Cm.
1 sq. ft.	= 9.290 sq. Dm.
1 acre	= 0.4047 hectare
1 sq. mile	= 259.008 hectares

Sq. Mm. × 0.00155	= sq. in.
Sq. Mm. ÷ 645.2	= sq. in.
Sq. Cm. × 0.155	= sq. in.
Sq. Cm. ÷ 6.452	= sq. in.
1 sq. meter	= 10.764 sq. ft.
1 sq. meter	= 1.196 sq. yd.
1 hectare	= 2.471 acres
Sq. kilomet. × 47.1	= acres

Volume

1 minim (water)	= 0.06161 cc.
1 fl. dr.	= 3.70 cc.
1 fl. oz.	= 29.5737 cc.
1 Apoth. oz. (water)	= 31.1035 cc.
1 pint	= 0.4732 liter
1 qt.	= 0.9464 liter
1 gal. (U.S.)	= 3.7854 liters
1 cu. inch	= 16.387 cc.
1 cu. ft.	= 0.0283 cu. meter
1 cu. yd.	= 0.765 cu. meter
1 cc.	= 16.23 minims (water)
1 cc.	= 0.2702 fl. dr.

1 cc.	= 0.0338 fl. oz.
1 liter	= 1.0567 qt.
1 liter	= 0.2642 gal.
1 liter	= 33.84 fl. oz.
liter ÷ 3.78	= gal. (231 cu. in.)
cc.	= 0.061 cu. in.
cc. ÷ 16.387	= cu. in.
cc. ÷ 3.697	= fl. dr.
cc. ÷ 29.57	= fl. oz.
1 cu. meter	= 35.314 cu. ft.
1 cu. meter	= 1.308 cu. yd.
1 cu. meter	= 264.2 gal.
1 liter	= 61.022 cu. in.
liter ÷ 3.78	= gal.
liter ÷ 28.316	= cu. ft.

Weight

1 grain	= 64.7989 Mgm.
1 oz. Avoir.	= 28.3495 Gm.
1 oz. Troy	= 31.1035 Gm.
1 lb. Avoir.	= 0.4536 kilo.
1 lb. Troy	= 0.3732 kilo.
1 lb. Avoir.	= 453.5924 Gm.

1 Mgm.	= 0.01543 grn.
1 Gm.	= 15.432 grn.
1 Kilo.	= 33.814 fl. oz.
1 Kilo.	= 2.205 lb. Avoir.
1 Kilo.	= 2.679 lb. Troy
1 Kilo.	= 35.274 oz. Avoir.
1 Kilo.	= 32.151 oz. Troy.
Gm. ÷ 28.35	= oz. Avoir.

Miscellaneous

1 Gal. (U.S.)	= 231 cu. in.
	= 8 pints
1 Gal. (U.S.)	= 8.313 lb. Avoir.
	= 58418.144 grn.
1 lb. Avoir. (water)	= 0.1203 gal.
1 fl. oz. (water)	= 456.392 grn.
	= 1.0391 oz. Avoir.
1 oz. Avoir. (water)	= 0.9623 fl. oz.
1 cu. in. (water)	= 252.892 grn.
1 liter (water)	= 1 kilo.

Thermometric Equivalents

To convert centigrade degrees into Fahrenheit degrees—Multiply the number of centigrade degrees by $\frac{9}{5}$ and add 32 to the result.

Example: 55 degrees centigrade equal how many degrees Fahrenheit?

$$55 \times \frac{9}{5} = 99;$$

$$99 + 32 = 131^{\circ} \text{ Fahrenheit.}$$

To convert Fahrenheit degrees into centigrade degrees—Subtract 32 from the number of Fahrenheit degrees and multiply the difference by $\frac{5}{9}$.

Example: 243 degrees Fahrenheit equal how many degrees centigrade?

$$243 - 32 = 211;$$

$$211 \times \frac{5}{9} = 117.2 \text{ degrees centigrade.}$$

°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.
-40	-40	- 1	30.2	38	100.4	77	170.6
-39	-38.2	0	32	39	102.2	78	172.4
-38	-36.4	1	33.8	40	104	79	174.2
-37	-34.6	2	35.6	41	105.8	80	176
-36	-32.8	3	37.4	42	107.6	81	177.8
-35	-31	4	39.2	43	109.4	82	179.6
-34	-29.2	5	41	44	111.2	83	181.4
-33	-27.4	6	42.8	45	113	84	183.2
-32	-25.6	7	44.6	46	114.8	85	185
-31	-23.8	8	46.4	47	116.6	86	186.8
-30	-22	9	48.2	48	118.4	87	188.6
-29	-20.2	10	50	49	120.2	88	190.4
-28	-18.4	11	51.8	50	122	89	192.2
-27	-16.6	12	53.6	51	123.8	90	194
-26	-14.8	13	55.4	52	125.6	91	195.8
-25	-13	14	57.2	53	127.4	92	197.6
-24	-11.2	15	59	54	129.2	93	199.4
-23	- 9.4	16	60.8	55	131	94	201.2
-22	- 7.6	17	62.6	56	132.8	95	203
-21	- 5.8	18	64.4	57	134.6	96	204.8
-20	- 4	19	66.2	58	136.4	97	206.6
-19	- 2.2	20	68	59	138.2	98	208.4
-18	- 0.4	21	69.8	60	140	99	210.2
-17	1.4	22	71.6	61	141.8	100	212
-16	3.2	23	73.4	62	143.6	101	213.8
-15	5	24	75.2	63	145.4	102	215.6
-14	6.8	25	77	64	147.2	103	217.4
-13	8.6	26	78.8	65	149	104	219.2
-12	10.4	27	80.6	66	150.8	105	221
-11	12.2	28	82.4	67	152.6	106	222.8
-10	14	29	84.2	68	154.4	107	224.6
- 9	15.8	30	86	69	156.2	108	226.4
- 8	17.6	31	87.8	70	158	109	228.2
- 7	19.4	32	89.6	71	159.8	110	230
- 6	21.2	33	91.4	72	161.6	111	231.8
- 5	23	34	93.2	73	163.4	112	233.6
- 4	24.8	35	95	74	165.2	113	235.4
- 3	26.6	36	96.8	75	167	114	237.2
- 2	28.4	37	98.6	76	168.8	115	239

Thermometric Equivalents—*Continued*

°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.
116	240.8	168	334.4	220	428	272	521.6
117	242.6	169	336.2	221	429.8	273	523.4
118	244.4	170	338	222	431.6	274	525.2
119	246.2	171	339.8	223	433.4	275	527
120	248	172	341.6	224	435.2	276	528.8
121	249.8	173	343.4	225	437	277	530.6
122	251.6	174	345.2	226	438.8	278	532.4
123	253.4	175	347	227	440.6	279	534.2
124	255.2	176	348.8	228	442.4	280	536
125	257	177	350.6	229	444.2	281	537.8
126	258.8	178	352.4	230	446	282	539.6
127	260.6	179	345.2	231	447.8	283	541.4
128	262.4	180	356	232	449.6	284	543.2
129	264.2	181	357.8	233	451.4	285	545
130	266	182	359.6	234	453.2	286	546.8
131	267.8	183	361.4	235	455	287	548.6
132	269.6	184	363.2	236	456.8	288	550.4
133	271.4	185	365	237	458.6	289	552.2
134	273.2	186	366.8	238	460.4	290	554
135	275	187	368.6	239	462.2	291	555.8
136	276.8	188	370.4	240	464	292	557.6
137	278.6	189	372.2	241	465.8	293	559.4
138	280.4	190	374	242	467.6	294	561.2
139	282.2	191	375.8	243	469.4	295	563
140	284	192	377.6	244	471.2	296	564.8
141	285.8	193	379.4	245	473	297	566.6
142	287.6	194	381.2	246	474.8	298	568.4
143	289.4	195	383	247	476.6	299	570.2
144	291.2	196	384.8	248	478.4	300	572
145	293	197	386.6	249	480.2	301	573.8
146	294.8	198	388.4	250	482	302	575.6
147	296.6	199	390.2	251	483.8	303	577.4
148	298.4	200	392	252	485.6	304	579.2
149	300.2	201	393.8	253	487.4	305	581
150	302	202	395.6	254	489.2	306	582.8
151	303.8	203	397.4	255	491	307	584.6
152	305.6	204	399.2	256	492.8	308	586.4
153	307.4	205	401	257	494.6	309	588.2
154	309.2	206	402.8	258	496.4	310	590
155	311	207	404.6	259	498.2	311	591.8
156	312.8	208	406.4	260	500	312	593.6
157	314.6	209	408.2	261	501.8	313	595.4
158	316.4	210	410	262	503.6	314	597.2
159	318.2	211	411.8	263	505.4	315	599
160	320	212	413.6	264	507.2	316	600.8
161	321.8	213	415.4	265	509	317	602.6
162	323.6	214	417.2	266	510.8	318	604.4
163	325.4	215	419	267	512.6	319	606.2
164	327.2	216	420.8	268	514.4	320	608
165	329	217	422.6	269	516.2	321	609.8
166	330.8	218	424.4	270	518	322	611.6
167	332.6	219	426.2	271	519.8	323	613.4

Specific Gravity Tables

Equivalent of degrees Baumé (American Standard) and specific gravity at 60° F. (15.56° C.).

For Liquids Heavier than Water

To convert Baumé degrees into specific gravity divide 145 by the difference between 145 and the number of Baumé degrees $\left(\text{sp. gr.} = \frac{145}{145 - \text{Bé.}}\right)$.

To convert specific gravity into Baumé degrees subtract from 145 the quotient obtained by dividing 145 by the specific gravity $\left(\text{Bé.} = 145 - \frac{145}{\text{sp. gr.}}\right)$.

°Bé.	Sp. Gr.	°Bé.	Sp. Gr.	°Bé.	Sp. Gr.	°Bé.	Sp. Gr.
0.5	1.0035	19.0	1.1508	37.5	1.3488	56.0	1.6292
1.0	1.0069	19.5	1.1554	38.0	1.3551	56.5	1.6384
1.5	1.0105	20.0	1.1600	38.5	1.3615	57.0	1.6477
2.0	1.0140	20.5	1.1647	39.0	1.3679	57.5	1.6571
2.5	1.0175	21.0	1.1694	39.5	1.3744	58.0	1.6667
3.0	1.0211	21.5	1.1741	40.0	1.3810	58.5	1.6763
3.5	1.0247	22.0	1.1789	40.5	1.3876	59.0	1.6860
4.0	1.0284	22.5	1.1837	41.0	1.3942	59.5	1.6959
4.5	1.0320	23.0	1.1885	41.5	1.4010	60.0	1.7059
5.0	1.0357	23.5	1.1934	42.0	1.4078	60.5	1.7160
5.5	1.0394	24.0	1.1983	42.5	1.4146	61.0	1.7262
6.0	1.0432	24.5	1.2033	43.0	1.4216	61.5	1.7365
6.5	1.0469	25.0	1.2083	43.5	1.4286	62.0	1.7470
7.0	1.0507	25.5	1.2134	44.0	1.4356	62.5	1.7576
7.5	1.0545	26.0	1.2185	44.5	1.4428	63.0	1.7683
8.0	1.0584	26.5	1.2236	45.0	1.4500	63.5	1.7791
8.5	1.0623	27.0	1.2288	45.5	1.4573	64.0	1.7901
9.0	1.0662	27.5	1.2340	46.0	1.4646	64.5	1.8012
9.5	1.0701	28.0	1.2393	46.5	1.4721	65.0	1.8125
10.0	1.0741	28.5	1.2446	47.0	1.4796	65.5	1.8239
10.5	1.0781	29.0	1.2500	47.5	1.4872	66.0	1.8354
11.0	1.0821	29.5	1.2554	48.0	1.4948	66.5	1.8471
11.5	1.0861	30.0	1.2609	48.5	1.5026	67.0	1.8590
12.0	1.0902	30.5	1.2664	49.0	1.5104	67.5	1.8710
12.5	1.0943	31.0	1.2719	49.5	1.5183	68.0	1.8831
13.0	1.0985	31.5	1.2775	50.0	1.5263	68.5	1.8954
13.5	1.1027	32.0	1.2832	50.5	1.5344	69.0	1.9079
14.0	1.1069	32.5	1.2889	51.0	1.5426	69.5	1.9205
14.5	1.1111	33.0	1.2946	51.5	1.5508	70.0	1.9333
15.0	1.1154	33.5	1.3004	52.0	1.5591	70.5	1.9468
15.5	1.1197	34.0	1.3063	52.5	1.5676	71.0	1.9595
16.0	1.1240	34.5	1.3122	53.0	1.5761	71.5	1.9728
16.5	1.1284	35.0	1.3182	53.5	1.5847	72.0	1.9863
17.0	1.1328	35.5	1.3242	54.0	1.5934	72.5	2.0000
17.5	1.1373	36.0	1.3303	54.5	1.6022	73.0	2.0139
18.0	1.1417	36.5	1.3364	55.0	1.6111	73.5	2.0280
18.5	1.1462	37.0	1.3426	55.5	1.6201	74.0	2.0423

Specific Gravity Tables

Equivalent of degrees Baumé (American Standard) with specific gravity at 60° F. (15.56° C.).

For Liquids Lighter than Water

To convert Baumé degrees into specific gravity divide 140 by the sum of 130 + the degrees Baumé $\left(\text{sp. gr.} = \frac{140}{130 + \text{Bé.}} \right)$.

To convert specific gravity into Baumé degrees subtract 130 from the quotient obtained by dividing 140 by the specific gravity $\left(\text{Bé.} = \frac{140}{\text{sp. gr.}} - 130 \right)$.

°Bé.	Sp. Gr.	°Bé.	Sp. Gr.	°Bé.	Sp. Gr.	°Bé.	Sp. Gr.
10.0	1.0000	29.0	0.8805	48.0	0.7865	67.0	0.7107
10.5	0.9964	29.5	0.8777	48.5	0.7843	67.5	0.7089
11.0	0.9929	30.0	0.8750	49.0	0.7821	68.0	0.7071
11.5	0.9894	30.5	0.8723	49.5	0.7799	68.5	0.7053
12.0	0.9859	31.0	0.8563	50.0	0.7778	69.0	0.7035
12.5	0.9825	31.5	0.8669	50.5	0.7756	69.5	0.7018
13.0	0.9790	32.0	0.8642	51.0	0.7735	70.0	0.7000
13.5	0.9756	32.5	0.8615	51.5	0.7713	70.5	0.6983
14.0	0.9722	33.0	0.8589	52.0	0.7692	71.0	0.6965
14.5	0.9689	33.5	0.8563	52.5	0.7671	71.5	0.6948
15.0	0.9655	34.0	0.8537	53.0	0.7650	72.0	0.6931
15.5	0.9622	34.5	0.8511	53.5	0.7629	72.5	0.6914
16.0	0.9589	35.0	0.8485	54.0	0.7609	73.0	0.6897
16.5	0.9556	35.5	0.8459	54.5	0.7588	73.5	0.6880
17.0	0.9524	36.0	0.8434	55.0	0.7568	74.0	0.6863
17.5	0.9492	36.5	0.8408	55.5	0.7547	74.5	0.6846
18.0	0.9459	37.0	0.8383	56.0	0.7527	75.0	0.6829
18.5	0.9428	37.5	0.8358	56.5	0.7507	75.5	0.6813
19.0	0.9396	38.0	0.8333	57.0	0.7487	76.0	0.6796
19.5	0.9365	38.5	0.8309	57.5	0.7467	76.5	0.6780
20.0	0.9333	39.0	0.8284	58.0	0.7447	77.0	0.6763
20.5	0.9302	39.5	0.8260	58.5	0.7427	77.5	0.6747
21.0	0.9272	40.0	0.8235	59.0	0.7407	78.0	0.6731
21.5	0.9241	40.5	0.8211	59.5	0.7388	78.5	0.6715
22.0	0.9211	41.0	0.8187	60.0	0.7368	79.0	0.6699
22.5	0.9180	41.5	0.8163	60.5	0.7349	79.5	0.6683
23.0	0.9150	42.0	0.8140	61.0	0.7330	80.0	0.6667
23.5	0.9121	42.5	0.8116	61.5	0.7311	80.5	0.6650
24.0	0.9091	43.0	0.8092	62.0	0.7292	81.0	0.6635
24.5	0.9061	43.5	0.8069	62.5	0.7273	81.5	0.6619
25.0	0.9032	44.0	0.8046	63.0	0.7254	82.0	0.6604
25.5	0.9003	44.5	0.8023	63.5	0.7235	82.5	0.6588
26.0	0.8974	45.0	0.8000	64.0	0.7216	83.0	0.6573
26.5	0.8946	45.5	0.7977	64.5	0.7198	83.5	0.6557
27.0	0.8917	46.0	0.7955	65.0	0.7179	84.0	0.6540
27.5	0.8889	46.5	0.7932	65.5	0.7161	84.5	0.6527
28.0	0.8861	47.0	0.7910	66.0	0.7143	85.0	0.6512
28.5	0.8833	47.5	0.7887	66.5	0.7125	85.5	0.6497

Percentage Solution Tables

APOTHECARIES

Although the making of a solution of given percentage strength is a simple matter where both the substance and the solvent are *weighed*, the preparation of a *definite volume* of solution of given percentage strength is not so easy, because the displacement of the substance can not well be known, and hence it is practically impossible to determine the ultimate volume afforded by a given *weight* of substance and a *definite volume* of solvent. For solutions up to say 3 per cent. a weight-to-volume solution is fairly accurate enough for practical therapeutic purposes, the margin of error being low, but for stronger solutions the error becomes increasingly great with increasing strength of solution, and such stronger solutions are best made by weighing. It is still an open question, however, whether or not the majority of physicians have in mind a weight-to-volume solution when ordering, as most of them are likely to think of so many grains per fluid ounce in calculating the strength of the percentage solutions ordered by them. For such weight-to-volume solution the following table will afford a ready means of ascertaining the quantities (by weight) of substance required to prepare varying volumes of definite w/v percentage strength, the calculations being based on 1 fl. oz. of water = 455 grains (round number) = 480 minims.

% Strength of Solution w/v	Grains of Substance required to make of aqueous solutions										
	$\frac{1}{4}$ fl. oz.	$\frac{1}{2}$ fl. oz.	1 fl. oz.	2 fl. oz.	3 fl. oz.	4 fl. oz.	6 fl. oz.	8 fl. oz.	10 fl. oz.	12 fl. oz.	16 fl. oz.
0.02 (1:5000)	$\frac{1}{60}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{7}{10}$	1	$1\frac{1}{2}$	$1\frac{1}{2}$
0.05 (1:2000)	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{2}{3}$	$\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$2\frac{3}{4}$	$3\frac{3}{4}$
0.1 (1:1000)	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{4}{5}$	$1\frac{1}{3}$	$1\frac{1}{2}$	$2\frac{2}{3}$	$3\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$	$7\frac{1}{4}$
0.2 (1:500)	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{4}{5}$	$1\frac{1}{2}$	$2\frac{3}{4}$	$3\frac{1}{2}$	$5\frac{1}{2}$	$7\frac{1}{2}$	9	11	$14\frac{1}{2}$
0.25 (1:400)	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{2}$	$6\frac{1}{2}$	9	$11\frac{3}{10}$	$13\frac{1}{2}$	$18\frac{1}{4}$
0.5 (1:200)	$\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{1}{2}$	$6\frac{3}{4}$	9	$13\frac{3}{4}$	$18\frac{1}{2}$	$22\frac{3}{4}$	$27\frac{1}{2}$	$36\frac{1}{2}$
1	$1\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{1}{2}$	9	$13\frac{1}{2}$	$18\frac{1}{4}$	$27\frac{1}{4}$	$36\frac{1}{2}$	$45\frac{1}{2}$	$54\frac{1}{2}$	$72\frac{3}{4}$
2	$2\frac{1}{4}$	$4\frac{1}{2}$	9	$18\frac{1}{4}$	$27\frac{1}{4}$	$36\frac{1}{2}$	$54\frac{1}{2}$	$72\frac{3}{4}$	91	$109\frac{1}{4}$	$145\frac{1}{2}$
3	$3\frac{3}{4}$	$6\frac{3}{4}$	$13\frac{1}{2}$	$27\frac{1}{4}$	$40\frac{3}{4}$	$54\frac{3}{4}$	82	$109\frac{1}{4}$	$136\frac{1}{2}$	$163\frac{3}{4}$	$218\frac{1}{2}$
4	$4\frac{1}{2}$	9	$18\frac{1}{4}$	$36\frac{1}{2}$	$54\frac{1}{2}$	$72\frac{3}{4}$	$109\frac{1}{4}$	$145\frac{1}{2}$	182	$218\frac{1}{2}$	$291\frac{1}{4}$
5	$5\frac{3}{4}$	$11\frac{1}{2}$	$22\frac{3}{4}$	$45\frac{1}{2}$	$68\frac{1}{4}$	91	$136\frac{1}{2}$	182	$227\frac{1}{2}$	273	364
10	$11\frac{1}{2}$	$22\frac{3}{4}$	$45\frac{1}{2}$	91	$136\frac{1}{2}$	182	273	364	455	546	728
15	17	$34\frac{1}{2}$	$68\frac{1}{4}$	$136\frac{1}{2}$	$204\frac{3}{4}$	273	$409\frac{1}{2}$	546	$682\frac{1}{2}$	819	1092
20	$22\frac{3}{4}$	$45\frac{1}{2}$	91	182	273	364	546	728	910	1092	1456
25	$28\frac{1}{2}$	57	$113\frac{3}{4}$	$227\frac{1}{2}$	$341\frac{1}{4}$	455	$682\frac{1}{2}$	910	$1137\frac{1}{2}$	1365	1820
40	$45\frac{1}{2}$	91	182	364	546	728	1092	1456	1820	2184	2912

METRIC

This table is based on the use of distilled water, 1 cc. at the normal temperature weighing *practically* 1 Gm. Of course there are frequent occasions where other solvents are required, and where these are used regard has to be paid to their specific gravities. Obviously, using a solvent much heavier or lighter than water would entirely change the result, consequently where such

solvents are employed the required quantity of such solvent as compared with that of water, and based on the specific gravity of the solvent, must first be determined, in order to obtain a solution of correct percentage strength by weight.

% Strength of Solution	<i>Grammes of Substance required to make of aqueous solutions</i>											
	10 cc.	15 cc.	25 cc.	30 cc.	60 cc.	75 cc.	100 cc.	120 cc.	125 cc.	200 cc.	500 cc.	1000 cc.
0.02 (1:5000)	0.002	0.003	0.005	0.006	0.012	0.015	0.02	0.024	0.025	0.04	0.1	0.2
0.05 (1:2000)	0.005	0.008	0.013	0.015	0.03	0.038	0.05	0.06	0.063	0.1	0.25	0.5
0.1 (1:1000)	0.01	0.015	0.025	0.03	0.06	0.075	0.1	0.12	0.125	0.2	0.5	1.0
0.2 (1:500)	0.02	0.03	0.05	0.06	0.12	0.15	0.2	0.24	0.25	0.4	1.0	2.0
0.25 (1:400)	0.025	0.038	0.063	0.075	0.15	0.188	0.25	0.3	0.313	0.5	1.25	2.5
0.5 (1:200)	0.05	0.075	0.125	0.15	0.3	0.375	0.5	0.6	0.625	1.0	2.5	5.0
1	0.1	0.15	0.25	0.3	0.6	0.75	1.0	1.2	1.25	2.0	5.0	10.0
1.5	0.15	0.225	0.375	0.45	0.9	1.125	1.5	1.8	1.875	3.0	7.5	15.0
2	0.2	0.3	0.5	0.6	1.2	1.5	2.0	2.4	2.5	4.0	10.0	20.0
3	0.3	0.45	0.75	0.9	1.8	2.25	3.0	3.6	3.75	6.0	15.0	30.0
4	0.4	0.6	1.0	1.2	2.4	3.0	4.0	4.8	5.0	8.0	20.0	40.0
5	0.5	0.75	1.25	1.5	3.0	3.75	5.0	6.0	6.25	10.0	25.0	50.0
10	1.0	1.5	2.5	3.0	6.0	7.5	10.0	12.0	12.5	20.0	50.0	100.0
15	1.5	2.25	3.75	4.5	9.0	11.25	15.0	18.0	18.75	30.0	75.0	150.0
20	2.0	3.0	5.0	6.0	12.0	15.0	20.0	24.0	25.0	40.0	100.0	200.0
25	2.5	3.75	6.25	7.5	15.0	18.75	25.0	30.0	31.25	50.0	125.0	250.0
40	4.0	6.0	10.0	12.0	24.0	30.0	40.0	48.0	50.0	80.0	200.0	400.0

Abbreviations

For economy of space many words used in the descriptive matter of this work have been so abbreviated as to retain merely the root form of the word. The meaning of the abbreviation, however, will be quite obvious, and should present little or no difficulty to the reader. The subjoined table will help remove any doubt where a doubt may arise.

A

A.....	alcohol
absol.....	absolute
absorp.....	absorption
abt.....	about
ac.....	acute
acc. or accord.....	according to
acic.....	acicular
acidul.....	acidulous, acidulate
act.....	active, action
add'g.....	adding
add'n.....	addition
adm.....	administer
admin.....	administration
affect.....	affection, affections
agre.....	agreeable
Ait.....	Aiton
albumin.....	{albuminous albuminuria
alc.....	alcohol
alcoh.....	alcoholic
alim.....	alimentary
alkal.....	{alkalies alkaline
alm.....	almost
alter.....	alterative
amenor.....	amenorrhea
amm.....	{ammonia ammonium
amm'l.....	ammoniacal
amorph.....	amorphous
amt.....	amount
anal.....	{analysis, analytical
analg.....	analgesic
Andr.....	Andrews
anesth.....	anesthetic
ang.....	angular
anhydr.....	anhydrous
anod.....	anodyne
anthelm.....	anthelmintic
antiblenorr.....	antiblenorrhagic
anticatar.....	anticatarrhal
antidiab.....	antidiabetic
antidiphth.....	antidiphtheritic
antiepil.....	{antiepileptic
antiepilep.....	
antihydr.....	antihydrotic

antihyst.....	antihysterical
antineural.....	antineuralgic
antiper.....	antiperiodic
antiphlog.....	antiphlogistic
antiprur.....	antipruritic
antipyr.....	antipyretic
antirheum.....	antirheumatic
antiscor.....	antiscorbutic
antisept.....	antiseptic
antispasm.....	antispasmodic
antisyph.....	antisyphilitic
antituberc.....	antitubercular
antizym.....	antizymotic
aper.....	aperient
aphrod.....	aphrodisiac
appl.....	application
approx.....	{approximate, approximately
aq.....	aqua
aqu.....	aqueous
Arn.....	Arnott
arom.....	aromatic
artic.....	articular
artif.....	artificial
assimil.....	{assimilable, assimilation
asth.....	asthma
astring.....	astringent
atm.....	{atmosphere, atmospheric

B

B.....	benzene (benzol)
B.P.....	British Pharmacopœia
B.P.C.....	British Pharmaceutical Codex
bacteric.....	bactericide
bacteriol.....	{bacteriological, bacteriology
Bart.....	Barton
Bé.....	Baumé
bec.....	because
bef.....	before
Benth.....	Bentham
Berg.....	Bergius
bicarb.....	bicarbonate
blennor.....	blennorrhagia

boil.....boiling point
 bot.....bottle
 botan.....botanical
 bot's.....bottles
 brill.....brilliant
 brit.....brittle
 bronch.....{bronchial,
 bronchitis
 Burch.....Burchell
 Burm.....Burmman
 bzn.....benzin

C

C.....{carbon
 centigrade
 chloroform
 caps.....capsules
 carcin.....carcinoma
 card.....cardiac
 caref.....carefully
 carmin.....carminative
 Casar.....Casaretti
 cath.....cathartic
 caut.....{caution, cautious,
 cautiously
 Cav.....Cavanilles
 cc.....cubic centimeter
 cereb.....cerebral
 Cham.....Chamisso
 charact.....characteristic
 chem.....chemical
 chilbl.....chilblains
 chlor.....chlorosis
 chlorof.....chloroform
 choc.....chocolate
 chol. inf.....cholera infantum
 cholag.....cholagogue
 cicatr.....{cicatrizization
 cicatrizant
 cloud.....cloudiness
 cm.....centimeter, -s
 Colebr.....Colebrooke
 collod.....collodion
 color or color'g.....coloring
 colorl.....colorless
 comb'd.....combined
 comb'n.....combination
 combust.....{combustion
 combustible
 compl.....completely
 compos'n.....composition
 comp'd.....compound
 compr.....compressed
 conc.....concentrated
 concent.....concentration
 conch.....conchoidal

condens.....condensation
 condit.....condition-s
 condyl.....condyloma, -mata
 congest.....congestion
 conjunct.....conjunctivitis
 constip.....constipation
 constit.....constituent
 cont.....contain
 cont'g.....containing
 convalesc.....convalescence
 convuls.....convulsions
 cor.....corrected
 corresp.....corresponding
 corros.....corrosive
 counterirrit.....counterirritant
 cruc.....crucible
 cryptocryst.....cryptocrystalline
 cryst.....{crystal
 crystalline
 crystallization
 cultiv.....cultivated
 cumul.....cumulative
 cutan.....cutaneous
 cylind.....cylindrical
 cyst.....cystitis

D

d.....dextro
 debil.....debility
 debilit.....{debilitated
 debilitating
 DeC.....De Candolle
 decoct.....decoction
 decomp'd.....decomposed
 decomp'os'n.....decomposition
 decomp'g.....decomposing
 deflag.....deflagrate
 dehydr.....dehydration
 deliq.....deliquescent
 delir.....{delirious
 delirium
 demulc.....demulcent
 deodor.....{deodorizer
 deodorizing
 depil.....depilatory
 deriv.....derivative
 Desf.....Desfontaines
 desic.....{desiccated
 desiccant
 destruct.....destructive
 detect.....detecting
 detect'n.....detection
 determ.....determination
 diab.....diabetes
 diaph., or diaphor.....diaphoretic
 diar.....diarrhea

diath.....	diathesis
differ.....	{ difference
	{ different
diffic.....	{ difficult
	{ difficulty
diffus.....	{ diffusible
	{ diffusion
dil.....	dilute, diluted
diphth.....	diphtheria
dis.....	disease
disagre.....	disagreeable
disap.....	disappearance
discol.....	discoloration
disch.....	discharge
discov.....	discovering
dis'd.....	diseased
disinf.....	disinfectant
diss.....	{ dissolves
	{ dissolving
distil.....	{ distillate
	{ distillation
	{ distilling
disting.....	distinguishing
diur.....	{ diuretic
diuret.....	
dysent.....	dysentery
dysmenor.....	dysmenorrhea
dyspep.....	dyspepsia

E.....	ether
eas.....	easily
ecz.....	eczema
eczemat.....	eczematous
effervesc.....	{ effervescence
	{ effervescent
	{ effervescing
efflor.....	{ effloresce
	{ efflorescence
effloresc.....	efflorescent
effus.....	effusion
elim.....	eliminate
emmen.....	emmenagogue
emphys.....	emphysema
emuls.....	emulsion
Endl.....	Endlicher
endometr.....	endometritis
Engl.....	Engler
enlargem.....	enlargement
epist.....	epistaxis
epith.....	epithelium
eq.....	equal
erupt.....	eruption
erysip.....	erysipelas
eryth.....	erythema
eschar.....	escharotic

essent.....	essential
ether.....	ethereal
evap.....	{ evaporate
	{ evaporating
	{ evaporation
evol.....	{ evolution
	{ evolve, evolved
exceed.....	exceedingly
excit.....	{ excitant
	{ excitation
	{ excitement
	{ exciting
exhaust.....	exhaustion
expector.....	expectorant
expos.....	exposure
expr.....	expressed
extern.....	{ external
	{ externally
extr.....	extract
exud.....	exudation

F

f.....	for
Fabr.....	Fabricius
febrif.....	febrifuge
ferment.....	fermentation
ferrug.....	ferruginous
fev.....	fever
fl.....	fluid
flatul.....	{ flatulence
	{ flatulent
floc.....	flocculent
flr.....	flower
fluoresc.....	fluorescence
F. Muell.....	Ferd. v. Mueller
fr.....	from
Fr.....	Fries
Fr. Cod.....	French Codex
fract.....	{ fractional
	{ fracture
frag.....	fragile
fragr.....	fragrant
fum.....	fuming
furunc.....	furuncular
fus.....	fusing, fusion

G

G.....	glycerin
Gaert.....	Gaertner
gangr.....	{ gangrene
	{ gangrenous
gastral.....	gastralgia
gelat.....	{ gelatin
	{ gelatinous
gen.....	genito
gen'l.....	general

gen'ly.....generally
 germic.....germicide
 gl.....glass
 glac.....glacial
 gland.....glandular
 glist.....glistening
 glitt.....glittering
 glyc.....glycerin
 Gm.....gramme, -s
 gonor.....gonorrhea
 grn.....grain, -s
 grad'y.....gradually
 gran..... $\left\{ \begin{array}{l} \text{granules} \\ \text{granular, -ated,} \\ \quad \text{-ation} \end{array} \right.$
 g. s.....glass-stopper

H

h..... $\left\{ \begin{array}{l} \text{heavy} \\ \text{high (temperature)} \end{array} \right.$
 hard.....hardness
 H.B.K.....Humboldt, Bon-
 pland & Kunth
 heat'g.....heating
 hemat.....hematinic
 hematem.....hematemesis
 hemih.....hemihedral
 hemopt.....hemoptysis
 hemor..... $\left\{ \begin{array}{l} \text{hemorrhage} \\ \text{hemorrhagic} \end{array} \right.$
 hemost.....hemostatic
 hepat..... $\left\{ \begin{array}{l} \text{hepatic} \\ \text{hepatitis} \end{array} \right.$
 hexag.....hexagonal
 hicc.....hiccough
 h'ly.....highly
 Hoffm.....Hoffmann
 holoh.....holohedral
 homogen.....homogeneous
 homol.....homologous
 Hook.....W. J. Hooker
 Hook. fil.....J. D. Hooker
 hr or hrs.....hour or hours
 Humb.....Humboldt
 hydr.....hydrated
 hygrosc.....hygroscopic
 hypertr.....hypertrophy
 hypn.....hypnotic
 hypochond.....hypochondriasis
 hypoderm.....hypodermically
 hyst.....hysteria

I

ident.....identical
 ignit.....ignition
 immed.....immediately

impalp.....impalpable
 imperv.....impervious
 impet.....impetigo
 incin.....incinerate
 incip.....incipient
 incomp.....incompatible
 incontin.....incontinence
 incr..... $\left\{ \begin{array}{l} \text{increase, increased} \\ \text{indication} \\ \text{indicator} \end{array} \right.$
 indic..... $\left\{ \begin{array}{l} \text{indication} \\ \text{indicator} \end{array} \right.$
 indig.....indigenous
 indol.....indolent
 indurat.....induration
 inf.....infantum
 infant.....infantile
 infect.....infectious
 infl.....inflamed
 inflam..... $\left\{ \begin{array}{l} \text{inflammation} \\ \text{inflammatory} \\ \text{inflammable} \end{array} \right.$
 influ.....influenza
 infus.....infusible, infusion
 inhal.....inhalation
 inj.....injection
 insol.....insoluble
 insomn.....insomnia
 inspis.....inspissated
 inst.....instead
 insufflat.....insufflation
 intens.....intense, intensely
 interm.....intermittent
 intern.....internally
 intest.....intestinal, intes-
 tines
 iodof.....iodoform
 irreg.....irregular
 iridesc.....iridescent
 irrit..... $\left\{ \begin{array}{l} \text{irritant} \\ \text{irritating} \end{array} \right.$
 irritabil.....irritability
 isom.....isomeric

J

Jacq.....Jacquin
 jaund.....jaundice

L

l.....levo
 L.....Linnaeus
 L. f. (or fil).....Linnaeus' Son
 Labill.....Labilliardiére
 laryng.....laryngitis
 lax.....laxative
 lvs.....leaves
 Lem.....Lemaire
 leucor.....leucorrhea

L'Her.....	L'Heritier
liberat'n.....	liberation
Lindl.....	Lindley
linim.....	liniment
liq.....	liquid
lithia.....	lithiasis
lusterl.....	lusterless
lustr.....	lustrous

M

m.....	meta
M.....	minim, minims
mak'g.....	making
malar.....	malarial
malign.....	malignant
mall.....	{ malleable malleability
mania.....	maniacal
manuf.....	{ manufacture manufacturing
maras.....	marasmus
Mart.....	Martius
max.....	maximum
medic.....	{ medicinal medicine
melanchol.....	melancholia
mell.....	mellitus
melt.....	melting point
membr.....	membrane
mening.....	meningitis
menor.....	menorrhagia
menstr.....	{ menstruation
menstruat.....	
met.....	{ metal metals
metal.....	metallic
metror.....	metrorrhagia
Mich.....	Michaux
microbic.....	microbicide
micros.....	{ microscopic microscopy
Mill.....	Miller
min.....	{ minute, or minutes
misc.....	miscible
mixt.....	mixture
mm.....	millimeter, -s
mod.....	{ moderate moderately
moist'd.....	moistened
molec.....	{ molecule molecular
monocl.....	monoclinic
monosym.....	monosymmetrical
mord.....	mordant
mount.....	mounting

m.p.....	melting-point
muc.....	mucous, mucus
Muell. Arg.....	Mueller of Argau
myalg.....	myalgia
mydr.....	mydriatic
M.-W.....	Martindale & Westcott, Extra Pharmacopœia

N

n.....	normal
nar. or narc.....	narcotic
natur.....	naturalized
Neck.....	Necker
need.....	needle
neopl.....	neoplasm
nerv.....	nervine, nervous
nervousn.....	nervousness
neural.....	{ neuralgia neuralgic
neurasth.....	neurasthenia
neut.....	neutral
neutral.....	neutralize
N.F.....	National Formu- lary
n'ly.....	nearly
noct.....	nocturnal
N.N.R.....	New & Non-official Remedies
norm.....	normal
nutr.....	nutrient
nutrit.....	nutrition, nutri- tive
Nutt.....	Nuttall

O

o.....	ortho
o.....	other
obes.....	obesity
obstin.....	obstinate
obt.....	obtain, obtained
occas.....	occasionally
octah.....	{ octahedral octahedron
odorl.....	odorless
oint.....	ointment
oophor.....	oophoritis
opal.....	{ opalescence opalescent
ophthal.....	{ ophthalmia ophthalmic
ophthalm.....	ophthalmology
ord.....	ordinary
organ.....	organic
osteomal.....	osteomalacia

otor.....	otorrhea
ovar.....	ovarian
oxid.....	oxidize
oxid'g.....	oxidizing
oxid'n.....	oxidation
oxidiz.....	{oxidizable oxidizer

P

p.....	para
P.G.....	German Pharma- copeia
paral.....	paralysis
parenchym.....	parenchymatously
paras.....	parasite, parasitic
part.....	partial
partic.....	{particular particularly
pecul.....	peculiar
penetr.....	{penetrate penetrating
percut.....	percutaneously
perf.....	perfect
perf'ly.....	perfectly
pericard.....	pericarditis
perist.....	{peristalsis peristaltic
periton.....	peritonitis
perm't.....	permanent
perm'tly.....	permanently
Pers.....	Person
petrol.....	petroleum
pharyng.....	pharyngeal
phlegmon.....	phlegmonous
photo, or.....	{photography
photog.....	
phth.....	phthisis
physiol.....	physiological
pityria.....	pityriasis
ph'thalein.....	phenolphthalein
pleas.....	pleasant
pneum.....	pneumonia
poison.....	poisonous, poison- ing
powd.....	powder
ppt.....	precipitate
pptd.....	precipitated
pptg.....	precipitating
pptn.....	precipitation
pregn.....	pregnancy
prep.....	prepared
prep'g.....	preparing
prep'n.....	preparation
preserv.....	preservative
princ.....	principle
prism.....	prismatic

prob'y.....	{probably product
prod.....	{produced producing
prop.....	proportion
prophyl.....	prophylactic
prur.....	{pruritis pruritic
psoria.....	psoriasis
pt.....	part
pts.....	parts
ptyal.....	ptyalism
puerp.....	puerperal
pulmon.....	pulmonary
pulv.....	pulverulent
pung.....	pungent
purg.....	purgative
purif.....	{purified purification
purul.....	purulent
putref.....	putrefaction
pyram.....	pyramidal

Q

quadr.....	quadratic
quant.....	quantity

R

rach.....	{rachitis rachitic
Raf.....	Rafinesque
rap.....	rapidly
R. B.....	Robert Brown
react.....	reaction
read.....	readily
reag.....	reagent
recom.....	recommended
rectang.....	rectangular
redd.....	{reddden reddish
rediss.....	redissolves
reduc.....	reducing
reduct.....	reduction
refract.....	refractive
reg.....	regular
reliev.....	relieving
remed.....	remedies
remit.....	remittent
remov'g.....	removing
repres.....	represents
res.....	residue
resid'l.....	residual
resin.....	resinous
resolv.....	resolvent
respir.....	{respirable respiration respiratory

rheum.....	}	rheumatism
rheumat.....		
rhomb.....		rhombic
rhomboh.....		rhombohedral
Roxb.....		Roxburgh
R. & P.....		Ruiz & Pavon
rubef.....		rubefacient

S

sacchar.....	}	saccharated
		saccharine
saponif.....		saponification
		saponifying
satur.....		saturated
scarlat.....		scarlatina
Schlecht.....		Schlechtendal
sciat.....		sciatica
scrof.....	}	scrofula
		scrofulous
sebor.....		seborrhea
sec.....		second, -s
sed.....	}	sedative
		sediment
		sensitive
		sensitiveness
sep.....		separate
sev'l.....		several
sex.....		sexual
shin'g.....		shining
sialag.....		sialagogue
sim.....		similar
slt.....		slight
sltly.....		slightly
sleepl.....		sleeplessness
sm.....		small
sol.....		soluble
Soland.....		Solander
solidif.....		solidifying
solub.....		solubility
solut.....		solution
solv.....		solvent
somet.....		sometimes
somew.....		somewhat
Sonn.....		Sonnerat
sopor.....		soporific
spar.....		sparingly
sp. gr.....		specific gravity
spasm.....		spasmodic
spec.....		species
spermator.....		spermatorrhea
spir.....	}	spirit, -s
		spirituous
Spreng.....		Sprengel
stim.....		stimulant
stimul.....		stimulating
stom.....		stomach
stoma.....		stomachic

stop'd.....		stoppered
styp.....		styptic
subconch.....		subconchoidal
subcut.....		subcutaneous
subl.....	}	sublimate
		sublimes
submet.....		submetallic
subseq.....		subsequent
substce.....		substance
	}	substitute
substit.....		substituting
		substitution
succed.....		succedaneum
sudorif.....		sudorific
suffic.....		sufficient
suffoc.....		suffocating
supersat.....		supersaturate
supposit.....		suppository
suppur.....		suppurative
	}	surgery
surg.....		surgical
susp.....		suspension
sw.....	}	sweat
		sweet
Sw.....		Swartz
sweet.....		sweetened
symm.....		symmetrical
symp.....		symptoms
synth.....	}	synthesis
		synthetic
syph.....	}	syphilis
		syphilitic
		syrup
syr.....		syrupy

T

tastel.....		tasteless
techn.....		technical
temp.....		temperature
teniaf.....		teniafuge
tert.....		tertiary
tet.....		tetanus
tetartoh.....		tetartohedral
tetrah.....	}	tetrahedral
		tetrahedron
		theoretical
theoret.....		theoretically
thro.....		through
Thunb.....		Thunberg
tinct.....		tincture
titr.....		titrate
titr'n.....		titration
tonsil.....		tonsillitis
toxicol.....		toxicological
t.p.d.....		times per day
tr.....		tincture

transluc.....translucent
 transmit.....transmitted
 transpar.....transparent
 trapezoh.....trapezohedral
 treatm.....treatment
 trem.....tremens
 Trevir.....Treviranus
 triclin.....triclinic
 trigem.....{ trigeminal
 { trigeminus
 trimet.....trimetric
 tritur.....triturated
 turb.....turbid
 turb'ty.....turbidity
 tuberc.....{ tubercular,
 { tuberculosis

U

ulc.....ulcer
 ulcerat.....ulceration
 ulcer'd.....ulcerated
 unct.....unctuous
 unpleas.....unpleasant
 ureth.....urethral
 urin.....urinary
 U.S.P.....{ United States
 { Pharmacopœia
 us'y.....usually
 uter.....uterine

V

v.....very

var.....{ variable
 { variety
 { various
 varic.....varicose
 veget.....{ vegetable
 { vegetation
 Vell.....Velloso
 vener.....venereal
 verm.....vermifuge
 vesic.....vesicant
 veter.....veterinary
 viol.....violent
 vitr.....vitreous
 vol.....{ volume,
 { volumetric
 volat.....{ volatile,
 { volatilize
 volum.....volumetric

W

W.....water
 w.....with
 w/v.....weight to volume
 W. & A.....Wight & Arnott
 wgh.....weigh
 wghble.....weighable
 wh.....white
 whoop.....whooping
 Willd.....Willdenow
 wt.....weight

Z

zym.....zymotic

